

09/876,830

FILE 'HOME' ENTERED AT 09:56:56 ON 12 JAN 2003

=> file reg

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'REGISTRY' ENTERED AT 09:57:05 ON 12 JAN 2003

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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 10 JAN 2003 HIGHEST RN 478774-26-4

DICTIONARY FILE UPDATES: 10 JAN 2003 HIGHEST RN 478774-26-4

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STN Note 27, Searching Properties in the CAS Registry File, for complete details:

<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

*** YOU HAVE NEW MAIL ***

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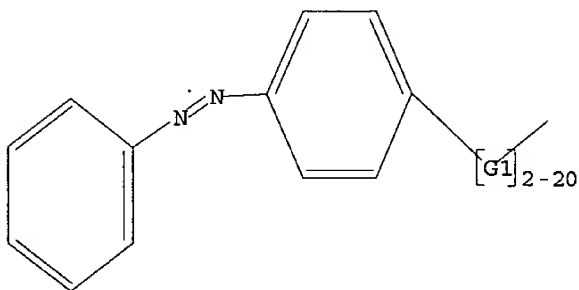
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L1 HAS NO ANSWERS

L1 STR



G1 C,O,S,N,P,Si

Structure attributes must be viewed using STN Express query preparation.

=> s l1 full

STRUCTURE TOO LARGE - SEARCH ENDED

09567863

A structure in your query is too large. You may delete attributes or atoms to reduce the size of the structure and try again.

=> s l1

STRUCTURE TOO LARGE - SEARCH ENDED

A structure in your query is too large. You may delete attributes or atoms to reduce the size of the structure and try again.

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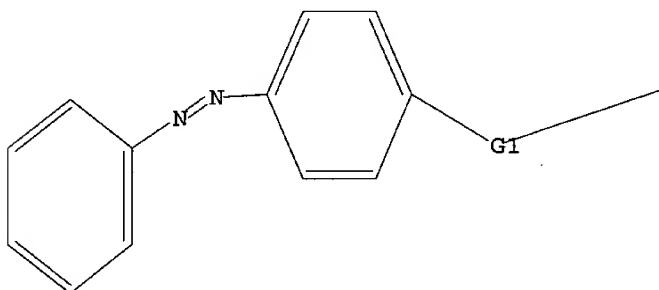
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L2 STRUCTURE UPLOADED

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L2 HAS NO ANSWERS

L2 STR



G1 C,O,S,N,P,Si

Structure attributes must be viewed using STN Express query preparation.

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FULL SEARCH INITIATED 09:58:51 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 128022 TO ITERATE

100.0% PROCESSED 128022 ITERATIONS
SEARCH TIME: 00.00.04

57478 ANSWERS

L3 57478 SEA SSS FUL L2

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

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149.16

FILE 'CAPLUS' ENTERED AT 09:59:02 ON 12 JAN 2003

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FILE COVERS 1907 - 12 Jan 2003 VOL 138 ISS 3
FILE LAST UPDATED: 10 Jan 2003 (20030110/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

=> s l3

L4 27503 L3

=> s l4 and quencher

5234 QUENCHER

L5 96 L4 AND QUENCHER

=> s l5 and phosphoramidite

2065 PHOSPHORAMIDITE

L6 1 L5 AND PHOSPHORAMIDITE

=> d l6 bib abs hitstr

L6 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS

AN 2001:435306 CAPLUS

DN 135:41772

TI Fluorophore-oligonucleotide-4-(phenyldiazenyl)phenylamine **quencher**
conjugates for use in hybridization assays

IN Reed, Michael W.; Lukhtanov, Eugeny Alexander; Gall, Alexander A.; Dempcy, Robert O.

PA Epoch Biosciences, Inc., USA

SO PCT Int. Appl., 122 pp.

CODEN: PIXXD2

DT Patent

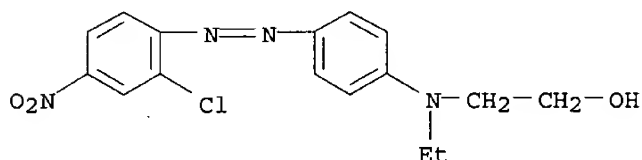
LA English

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001042505	A2	20010614	WO 2000-US33333	20001208
	WO 2001042505	A3	20020124		
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	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	EP 1235938	A2	20020904	EP 2000-984069	20001208
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
	US 2002155484	A1	20021024	US 2002-93769	20020307
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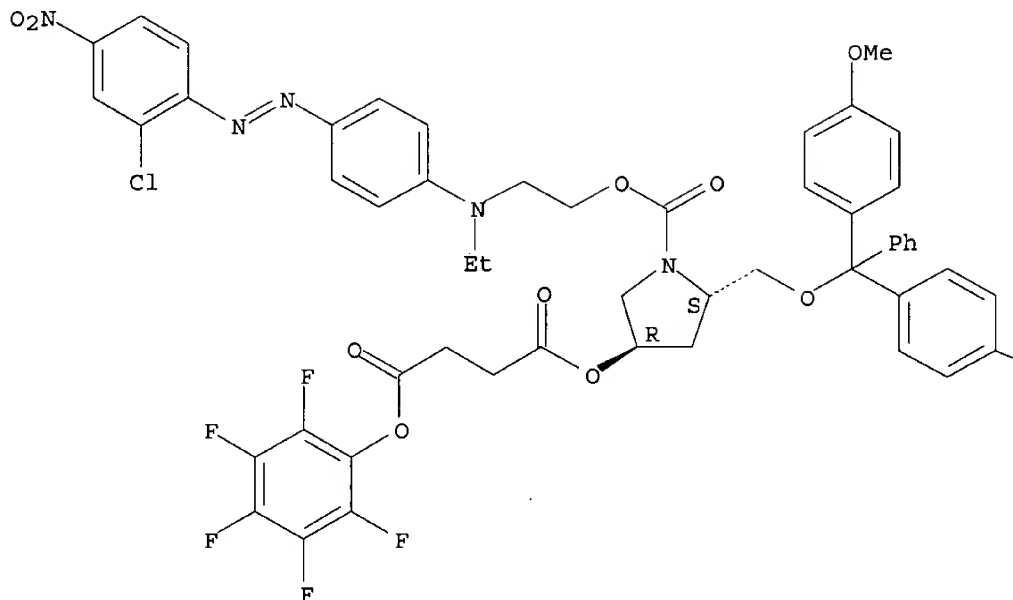
09567863

- AB Oligonucleotide-fluorophore-**quencher** conjugates wherein the fluorophore moiety has emission wavelengths in the range of about (300) to about (800) nm, and or where the **quencher** includes a substituted 4-(phenyldiazenyl)phenylamine structure provide improved signal to noise ratios and other advantageous characteristics in hybridization and related assays. The oligonucleotide-fluorophore-**quencher** conjugates can be synthesized by utilizing novel **phosphoramidite** reagents that incorporate the **quencher** moiety based on the substituted 4-(phenyldiazenyl)phenylamine structure, and or novel **phosphoramidite** reagents that incorporate a fluorophore moiety based on the substituted coumarin, substituted 7-hydroxy-3H-phenoxazin-3-one, or substituted 5,10-dihydro-10-[phenyl]pyrido[2,3-d;6,5-d']dipyrimidine-2,4,6,8-(1H,3H,7H,9H,10H)-tetrone structure. Oligonucleotide-fluorophore-**quencher**-minor groove binder conjugates including a pyrrolo[4,5-e]indolin-7-yl-carbonyl{pyrrolo[4,5-e]indolin-7-yl}carbonyl pyrrolo[4,5-e]indoline-7-carboxylate (DPI3) moiety as the minor groove binder and the substituted 4-(phenyldiazenyl)phenylamine moiety as the **quencher**, were synthesized and have substantially improved hybridization and signal to noise ratio properties.
- IT 3180-81-2, Disperse Red 13 344436-74-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(fluorophore-oligonucleotide-4-(phenyldiazenyl)phenylamine **quencher** conjugates for use in hybridization assays)
- RN 3180-81-2 CAPLUS
- CN Ethanol, 2-[[4-[(2-chloro-4-nitrophenyl)azo]phenyl]ethylamino]- (9CI) (CA INDEX NAME)



- RN 344436-74-4 CAPLUS
- CN Butanedioic acid, (3R,5S)-5-[[[bis(4-methoxyphenyl)phenylmethoxy]methyl]-1-[[2-[[4-[(2-chloro-4-nitrophenyl)azo]phenyl]ethylamino]ethoxy]carbonyl]-3-pyrrolidinyl pentafluorophenyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.



— OMe

IT 344436-39-1P 344436-40-4DP, conjugates with CPG

344436-42-6P 344436-43-7P 344436-44-8DP,
conjugates with CPG 344436-48-2P 344436-49-3P

344436-50-6P 344436-55-1P 344436-56-2P

344436-57-3P 344436-58-4P 344436-59-5P

344436-60-8P 344436-72-2P 344436-73-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)

(fluorophore-oligonucleotide-4-(phenyldiazenyl)phenylamine

quencher conjugates for use in hybridization assays)

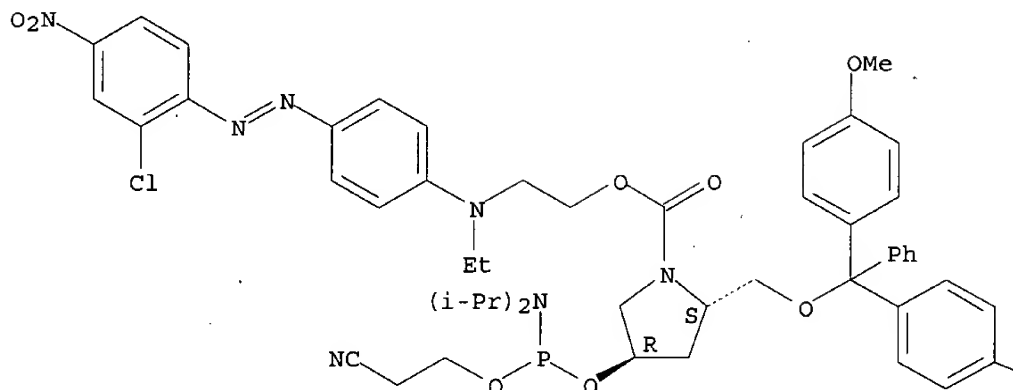
RN 344436-39-1 CAPLUS

CN 1-Pyrrolidinecarboxylic acid, 2-[[bis(4-methoxyphenyl)phenylmethoxy]methyl
]-4-[[[bis(1-methylethyl)amino] (2-cyanoethoxy)phosphino]oxy]-,
2-[[4-[(2-chloro-4-nitrophenyl)azol]phenyl]ethylamino]ethyl ester, (2S,4R)-
(9CI) (CA INDEX NAME)

09567863

Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A



PAGE 1-B

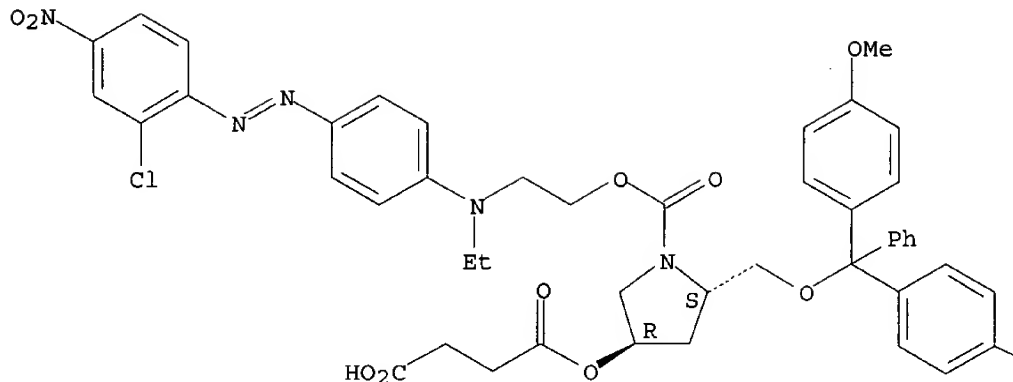
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RN 344436-40-4 CAPLUS
CN Butanedioic acid, mono[(3R,5S)-5-[[bis(4-methoxyphenyl)phenylmethoxy]methyl]-1-[[2-[[4-[(2-chloro-4-nitrophenyl)azo]phenyl]ethylamino]ethoxy]carbonyl]-3-pyrrolidinyl] ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

09567863

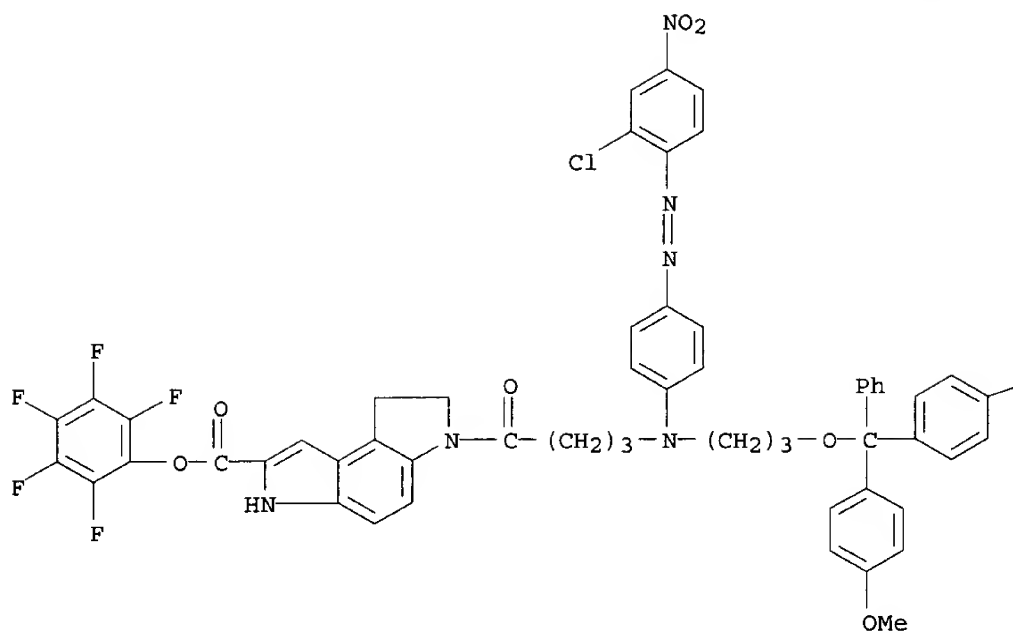
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PAGE 1-B

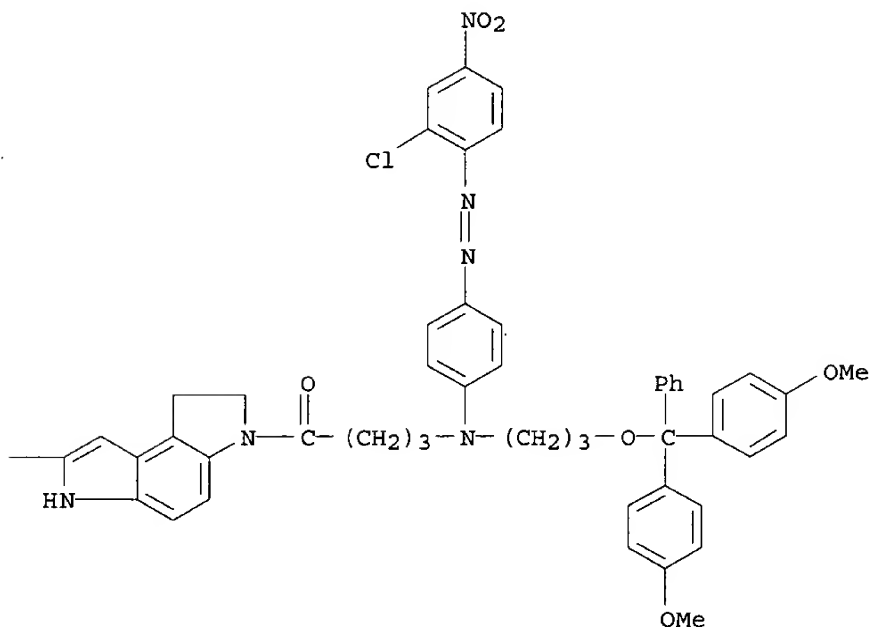
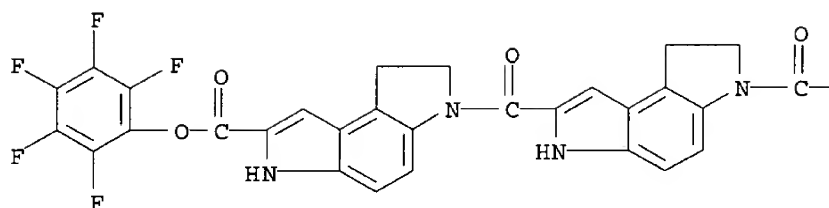
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RN 344436-42-6 CAPLUS
CN Benzo[1,2-b:4,3-b']dipyrrole-2-carboxylic acid, 6-[4-[[3-[bis(4-methoxyphenyl)phenylmethoxy]propyl] [4-[(2-chloro-4-nitrophenyl)azo]phenyl]amino]-1-oxobutyl]-3,6,7,8-tetrahydro-, pentafluorophenyl ester (9CI) (CA INDEX NAME)

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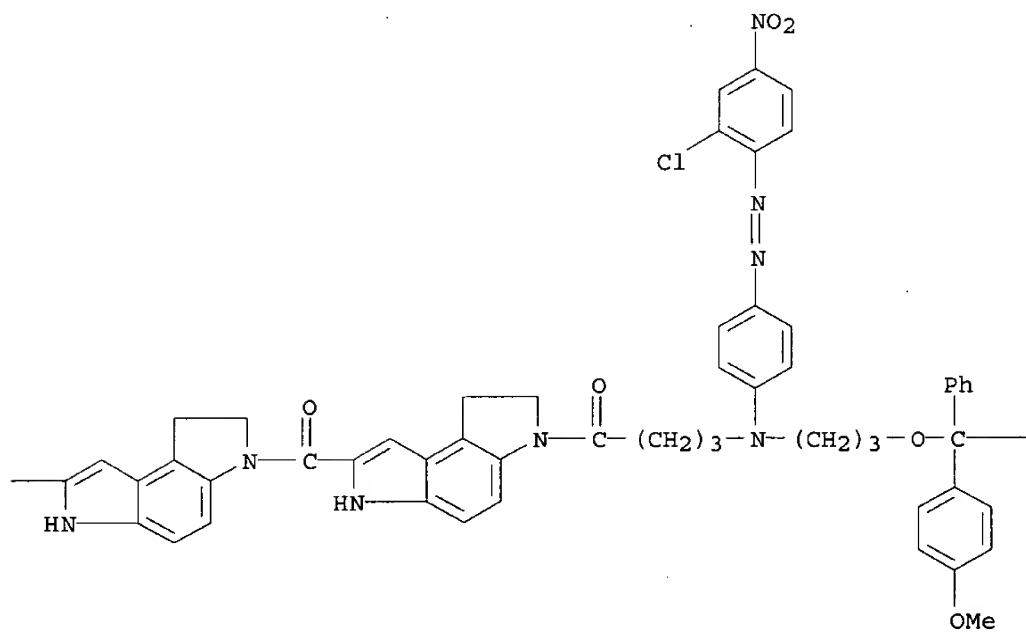
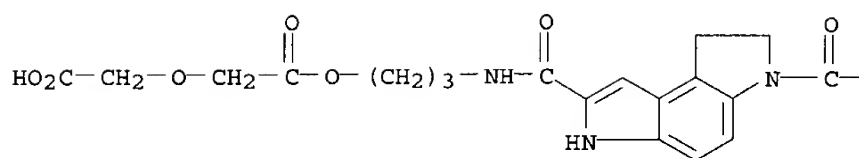
RN 344436-43-7 CAPLUS

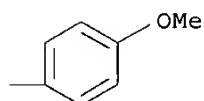
CN Benzo[1,2-b:4,3-b']dipyrrole-2-carboxylic acid, 6-[[6-[[6-[4-[[3-[bis(4-methoxyphenyl)phenylmethoxy]propyl][4-[(2-chloro-4-nitrophenyl)azo]phenyl]amino]-1-oxobutyl]-3,6,7,8-tetrahydrobenzo[1,2-b:4,3-b']dipyrrol-2-yl]carbonyl]-3,6,7,8-tetrahydrobenzo[1,2-b:4,3-b']dipyrrol-2-yl]carbonyl]-3,6,7,8-tetrahydro-, pentafluorophenyl ester (9CI) (CA INDEX NAME)



RN 344436-44-8 CAPLUS

CN Acetic acid, (carboxymethoxy)-, 1-[3-[[[6-[[6-[[6-[4-[[3-[bis(4-methoxyphenyl)phenylmethoxy]propyl] 4-[(2-chloro-4-nitrophenyl)azo]phenyl]amino]-1-oxobutyl]-3,6,7,8-tetrahydrobenzo[1,2-b:4,3-b']dipyrrol-2-yl]carbonyl]-3,6,7,8-tetrahydrobenzo[1,2-b:4,3-b']dipyrrol-2-yl]carbonyl]-3,6,7,8-tetrahydrobenzo[1,2-b:4,3-b']dipyrrol-2-yl]carbonyl]amino]propyl] ester (9CI) (CA INDEX NAME)

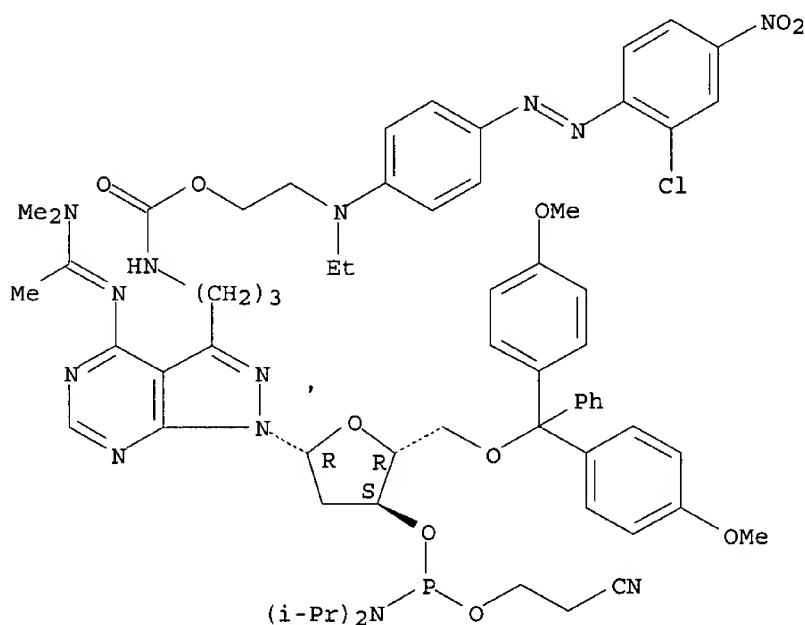




RN 344436-48-2 CAPLUS

CN Carbamic acid, [3-[1-[5-O-[bis(4-methoxyphenyl)phenylmethyl]-3-O-[[bis(1-methylethyl)amino](2-cyanoethoxy)phosphino]-2-deoxy-.beta.-D-erythro-pentofuranosyl]-4-[[1-(dimethylamino)ethylidene]amino]-1H-pyrazolo[3,4-d]pyrimidin-3-yl]propyl]-, 2-[[4-[(2-chloro-4-nitrophenyl)azol]phenyl]ethylamino]ethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

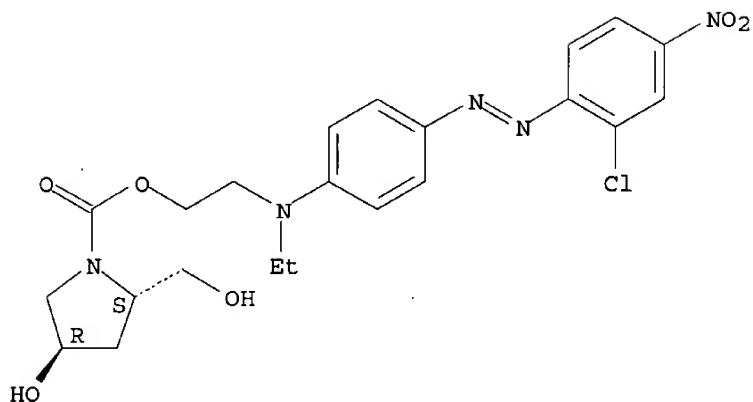


RN 344436-49-3 CAPLUS

CN 1-Pyrrolidinecarboxylic acid, 4-hydroxy-2-(hydroxymethyl)-, 2-[[4-[(2-chloro-4-nitrophenyl)azol]phenyl]ethylamino]ethyl ester, (2S,4R)- (9CI) (CA INDEX NAME)

09567863

Absolute stereochemistry.
Double bond geometry unknown.

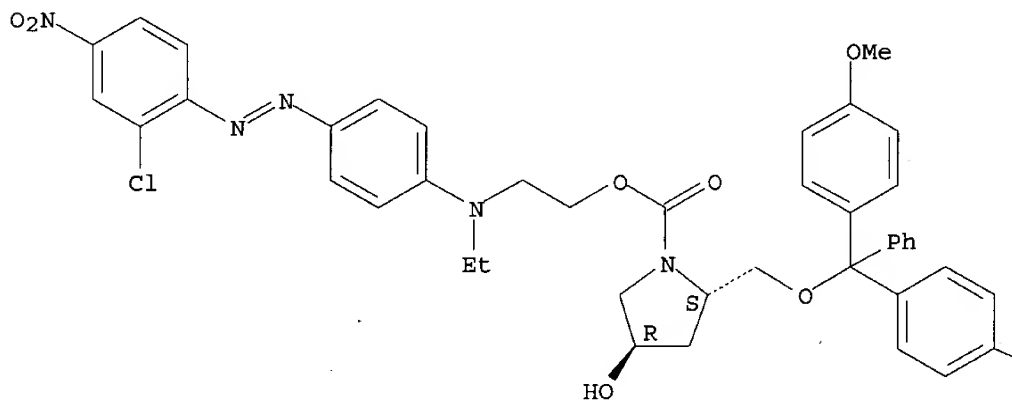


RN 344436-50-6 CAPLUS

CN 1-Pyrrolidinecarboxylic acid, 2-[[bis(4-methoxyphenyl)phenylmethoxy]methyl]-4-hydroxy-, 2-[[4-[(2-chloro-4-nitrophenyl)azo]phenyl]ethylamino]ethyl ester, (2S,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

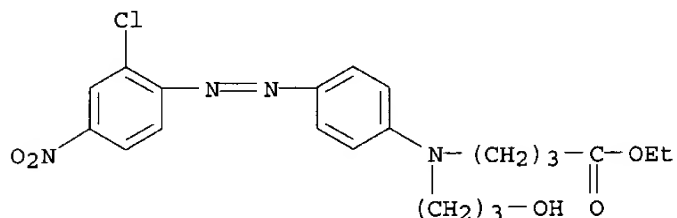
PAGE 1-A



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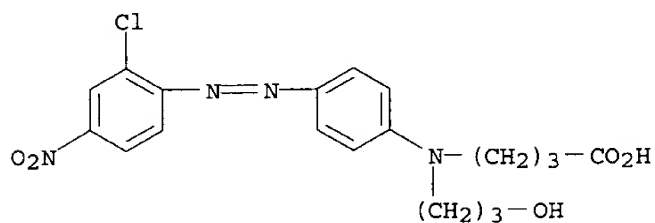
RN 344436-55-1 CAPLUS

CN Butanoic acid, 4-[[4-[(2-chloro-4-nitrophenyl)azo]phenyl] (3-hydroxypropyl)amino]-, ethyl ester (9CI) (CA INDEX NAME)



RN 344436-56-2 CAPLUS

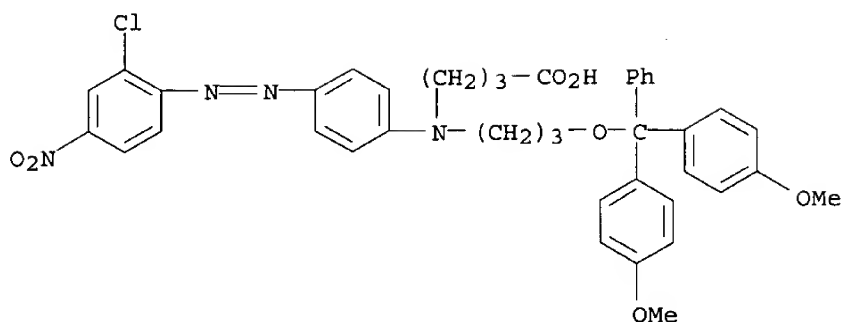
CN Butanoic acid, 4-[[4-[(2-chloro-4-nitrophenyl)azo]phenyl] (3-hydroxypropyl)amino]- (9CI) (CA INDEX NAME)



RN 344436-57-3 CAPLUS

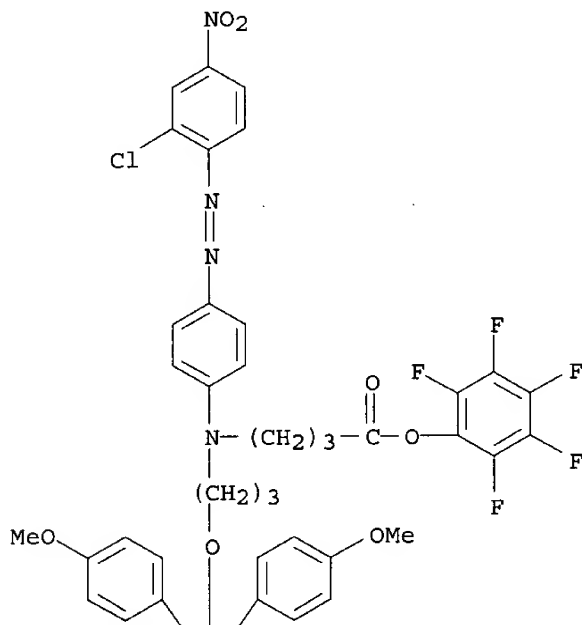
CN Butanoic acid, 4-[[3-[bis(4-methoxyphenyl)phenylmethoxy]propyl] [4-[(2-chloro-4-nitrophenyl)azo]phenyl]amino]- (9CI) (CA INDEX NAME)

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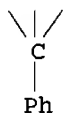


RN 344436-58-4 CAPLUS
 CN Butanoic acid, 4-[[3-[[bis(4-methoxyphenyl)phenylmethoxy]propyl][4-[(2-chloro-4-nitrophenyl)azo]phenyl]amino]-, pentafluorophenyl ester (9CI)
 (CA INDEX NAME)

PAGE 1-A

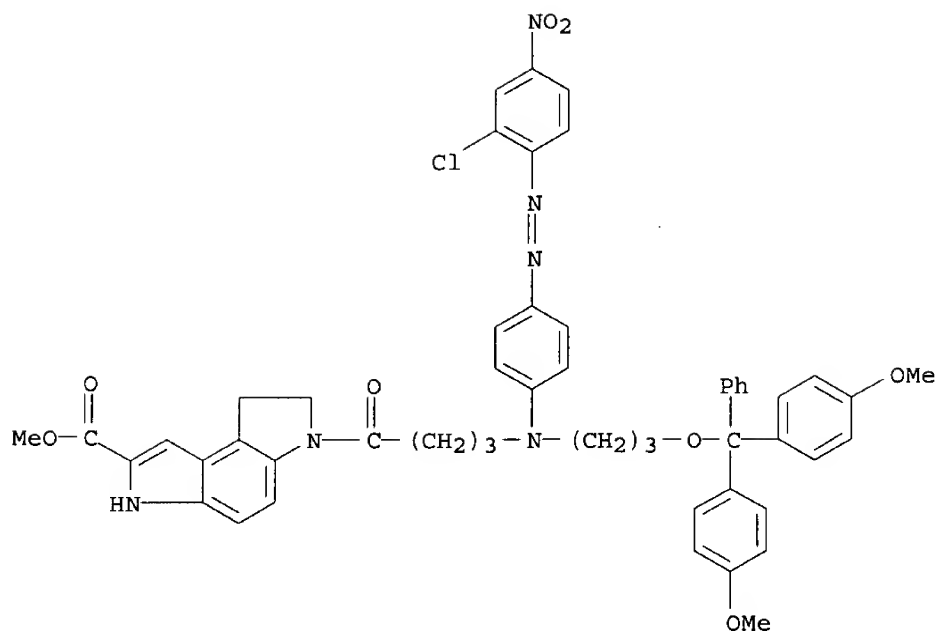


PAGE 2-A



RN 344436-59-5 CAPLUS
 CN Benzo[1,2-b:4,3-b']dipyrrole-2-carboxylic acid, 6-[[4-[[3-[[bis(4-methoxyphenyl)phenylmethoxy]propyl][4-[(2-chloro-4-nitrophenyl)azo]phenyl]amino]-1-oxobutyl]-3,6,7,8-tetrahydro-, methyl ester (9CI) (CA INDEX NAME)

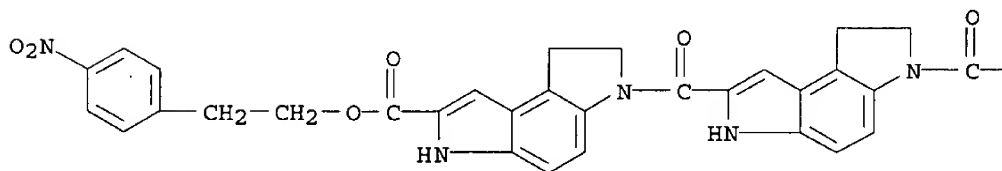
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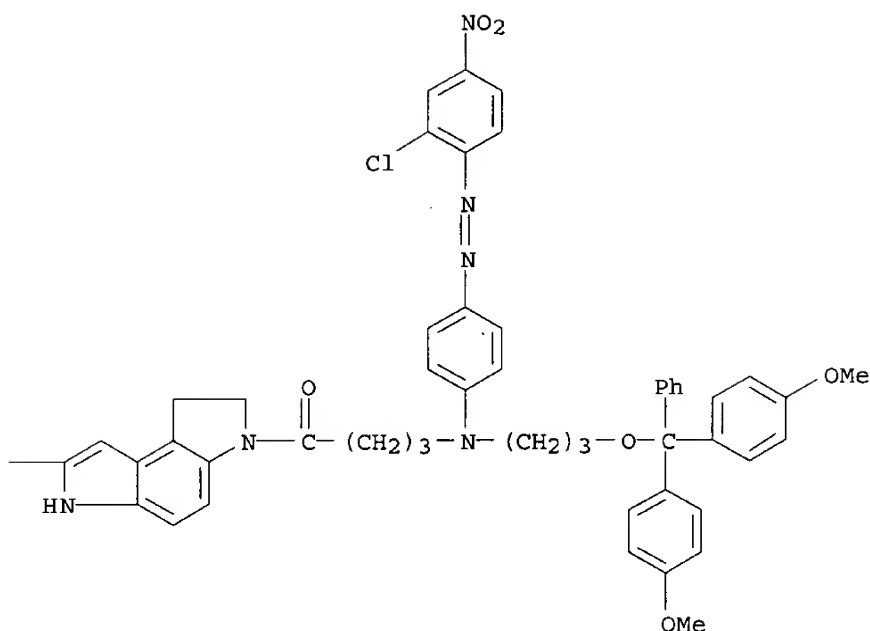


RN 344436-60-8 CAPLUS

CN Benzo[1,2-b:4,3-b']dipyrrole-2-carboxylic acid, 6-[[[6-[[[6-[4-[[[3-[bis(4-methoxyphenyl)phenylmethoxy]propyl][4-[(2-chloro-4-nitrophenyl)azo]phenyl]amino]-1-oxobutyl]-3,6,7,8-tetrahydrobenzo[1,2-b:4,3-b']dipyrrol-2-yl]carbonyl]-3,6,7,8-tetrahydrobenzo[1,2-b:4,3-b']dipyrrol-2-yl]carbonyl]-3,6,7,8-tetrahydro-, 2-(4-nitrophenyl)ethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

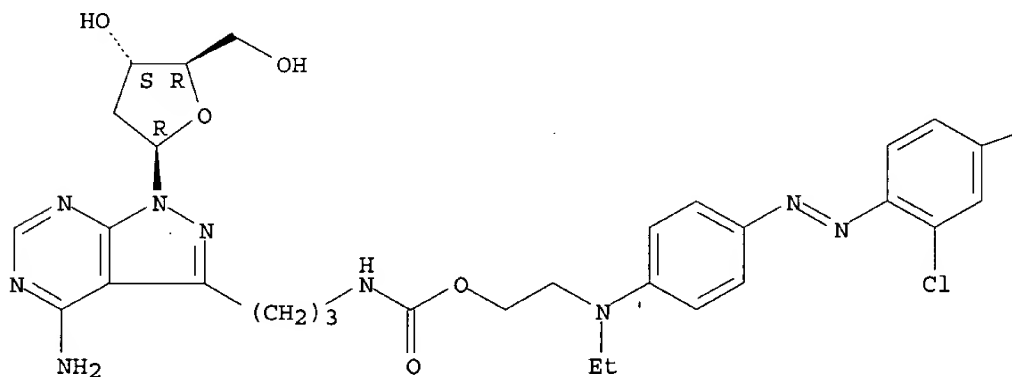




RN 344436-72-2 CAPLUS

CN Carbamic acid, [3-[4-amino-1-(2-deoxy-.beta.-D-erythro-pentofuranosyl)-1H-pyrazolo[3,4-d]pyrimidin-3-yl]propyl]-, 2-[[4-[(2-chloro-4-nitrophenyl)azo]phenyl]ethylamino]ethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.



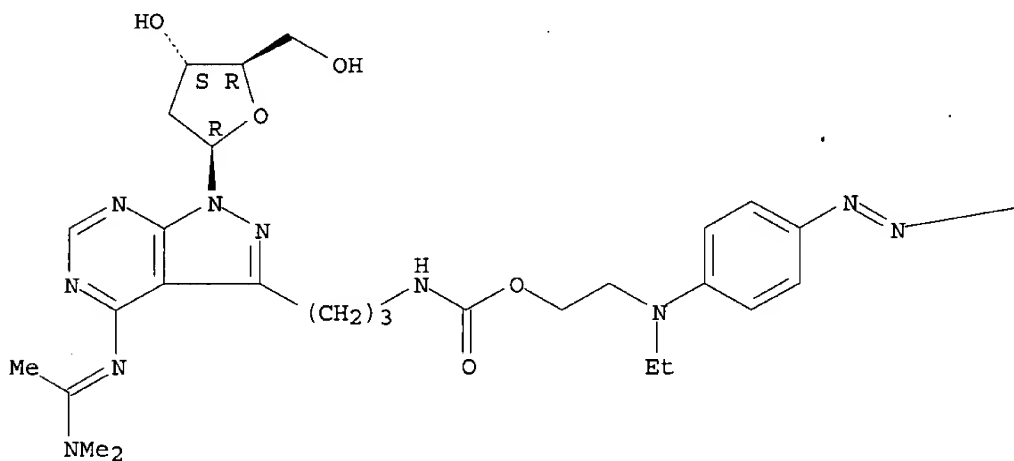
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RN 344436-73-3 CAPLUS

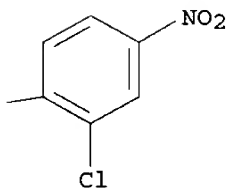
CN Carbamic acid, [3-[1-(2-deoxy-.beta.-D-erythro-pentofuranosyl)-4-[[1-(dimethylamino)ethylidene]amino]-1H-pyrazolo[3,4-d]pyrimidin-3-yl]propyl)-, 2-[[4-[(2-chloro-4-nitrophenyl)azo]phenyl]ethylamino]ethyl ester (9CI)
(CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A



PAGE 1-B



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=> d his

(FILE 'HOME' ENTERED AT 09:56:56 ON 12 JAN 2003)

FILE 'REGISTRY' ENTERED AT 09:57:05 ON 12 JAN 2003

L1 STRUCTURE UPLOADED
L2 STRUCTURE UPLOADED
L3 57478 S L2 FULL

FILE 'CAPLUS' ENTERED AT 09:59:02 ON 12 JAN 2003

L4 27503 S L3
L5 96 S L4 AND QUENCHER
L6 1 S L5 AND PHOSPHORAMIDITE

=> d 15 bib abs hitstr 1-25

L5 ANSWER 1 OF 96 CAPLUS COPYRIGHT 2003 ACS
AN 2002:946512 CAPLUS
DN 138:20449
TI Oligonucleotide probes containing fluorophores, quenchers, and minor groove binders and their use in hybridization assays
IN Reed, Michael W.; Lukhtanov, Eugeny Alexander; Gall, Alexander A.; Dempcy, Robert O.; Vermeulen, Nicolaas M. J.
PA Epoch Biosciences, Inc., USA
SO PCT Int. Appl., 134 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002099141	A1	20021212	WO 2002-US17787	20020605
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	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

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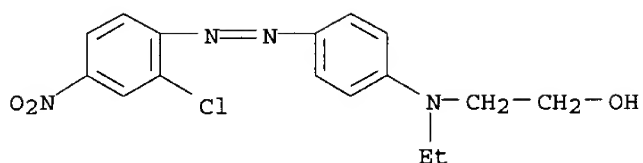
AB Fluorogenic oligonucleotide probes with **quencher** structures are provided for use in hybridization assays. The probes also can contain a minor groove binder. Methods and reagents for synthesizing such probes are provided. Thus, oligonucleotides contg. fluorescein or TAMRA fluorophore, DABCYL, resorufin, coumarin, Red 1, or Red 13 **quencher**, and a minor groove binder were synthesized and characterized. Two such probes were used in a PCR assay for detection of a SNP in the RRM1 gene.

IT 3180-81-2, Disperse Red 13

RL: RCT (Reactant); RACT (Reactant or reagent)
(oligonucleotide probes contg. fluorophores, quenchers, and minor groove binders and their use in hybridization assays)

RN 3180-81-2 CAPLUS

CN Ethanol, 2-[[4-[(2-chloro-4-nitrophenyl)azo]phenyl]ethylamino]- (9CI) (CA INDEX NAME)



IT 344436-39-1P 344436-42-6P 344436-43-7P
 344436-44-8DP, conjugates with CPG 344436-48-2P
 344436-49-3P 344436-50-6P 344436-55-1P
 344436-56-2P 344436-58-4P 344436-59-5P
 344436-60-8P 344436-72-2P 344436-73-3P
 404887-20-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

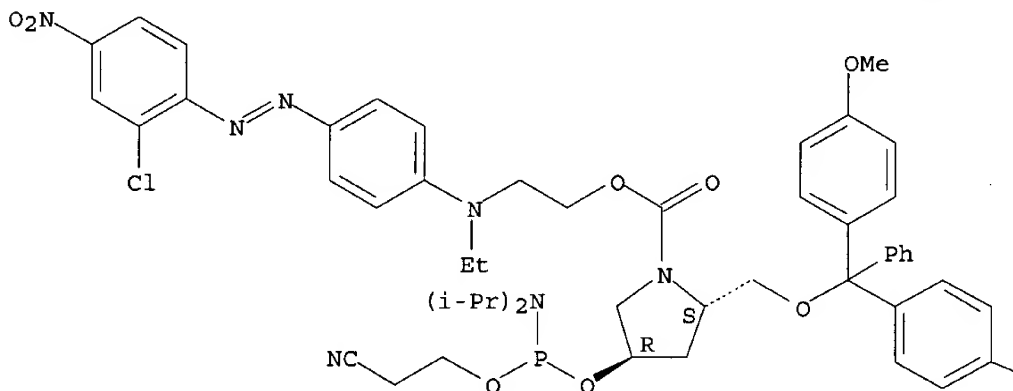
(oligonucleotide probes contg. fluorophores, quenchers, and minor groove binders and their use in hybridization assays)

RN 344436-39-1 CAPLUS

CN 1-Pyrrolidinecarboxylic acid, 2-[[bis(4-methoxyphenyl)phenylmethoxy]methyl]-4-[[[bis(1-methylethyl)amino](2-cyanoethoxy)phosphino]oxy]-, 2-[[4-[(2-chloro-4-nitrophenyl)azo]phenyl]ethylamino]ethyl ester, (2S,4R)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry unknown.

PAGE 1-A

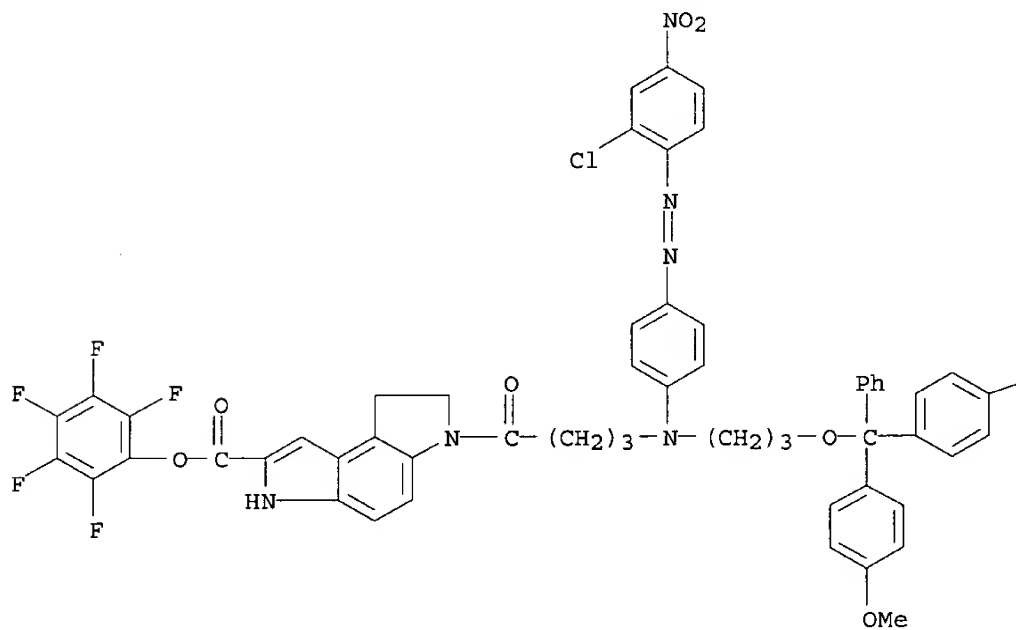


OMe

RN 344436-42-6 CAPLUS

CN Benzo[1,2-b:4,3-b']dipyrrole-2-carboxylic acid, 6-[4-[[3-[bis(4-methoxyphenyl)phenylmethoxy]propyl] [4-[(2-chloro-4-nitrophenyl)azo]phenyl]amino]-1-oxobutyl]-3,6,7,8-tetrahydro-, pentafluorophenyl ester (9CI) (CA INDEX NAME)

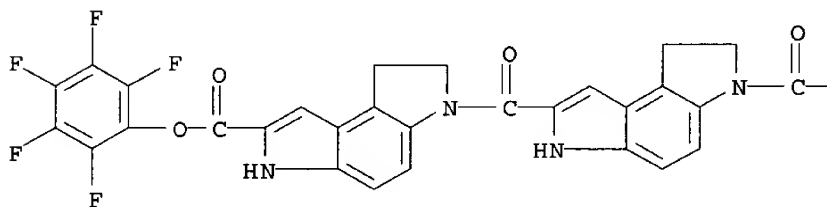
PAGE 1-A

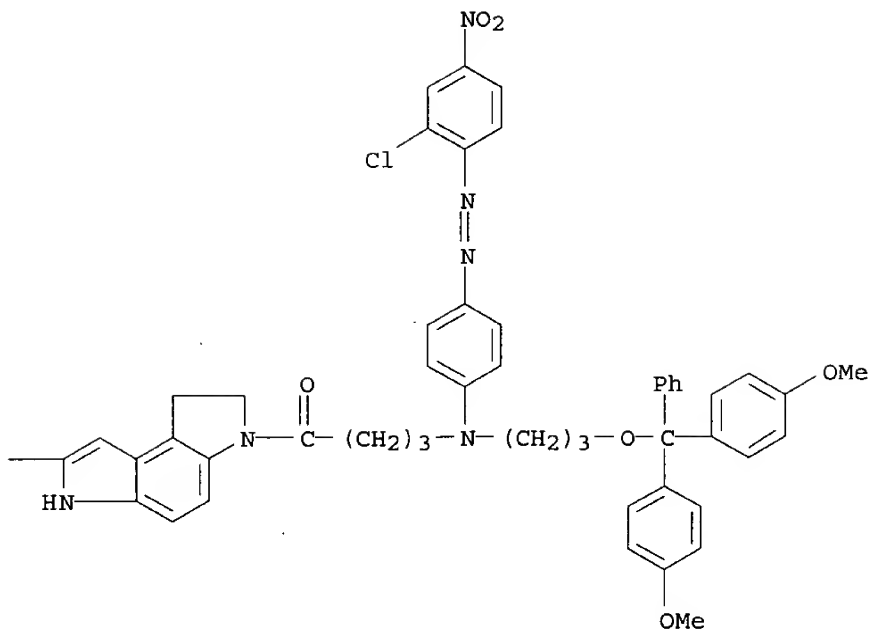


— OMe

RN 344436-43-7 CAPLUS

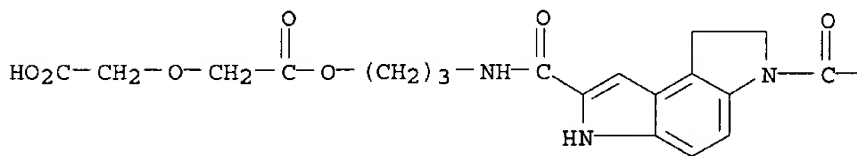
CN Benzo[1,2-b:4,3-b']dipyrrole-2-carboxylic acid, 6-[[6-[[6-[4-[3-[bis(4-methoxyphenyl)phenylmethoxy]propyl] [4-[(2-chloro-4-nitrophenyl)azo]phenyl]amino] -1-oxobutyl] -3,6,7,8-tetrahydrobenzo[1,2-b:4,3-b']dipyrrol-2-yl]carbonyl] -3,6,7,8-tetrahydrobenzo[1,2-b:4,3-b']dipyrrol-2-yl]carbonyl] -3,6,7,8-tetrahydro-, pentafluorophenyl ester (9CI) (CA INDEX NAME)

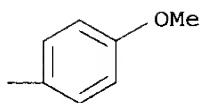
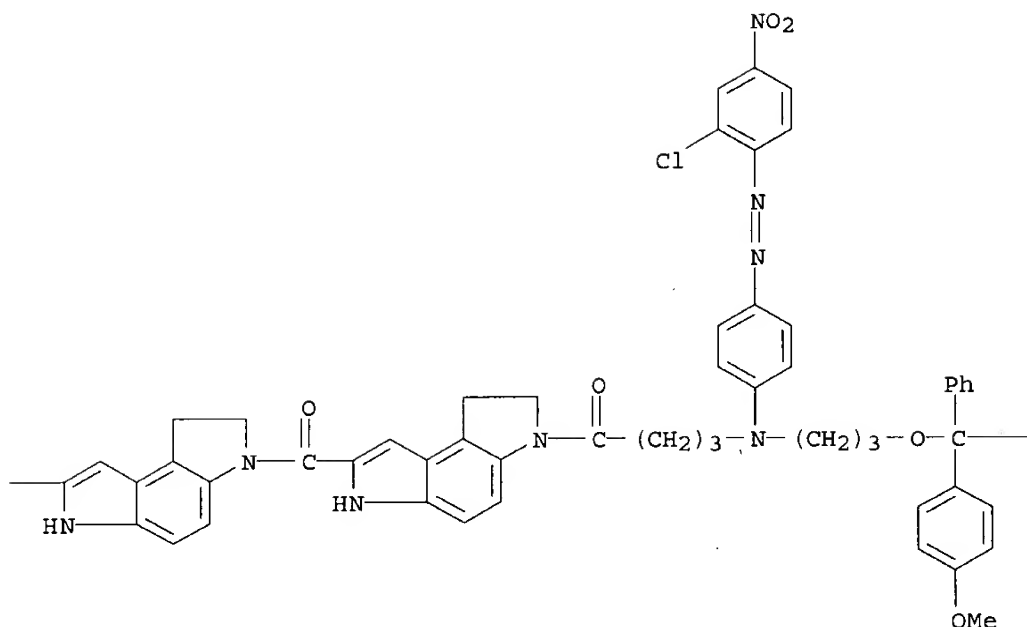




RN 344436-44-8 CAPLUS

CN Acetic acid, (carboxymethoxy)-, 1-[3-[[[6-[[6-[[6-[4-[[3-[bis(4-methoxyphenyl)phenylmethoxy]propyl][4-[(2-chloro-4-nitrophenyl)azo]phenyl]amino]-1-oxobutyl]-3,6,7,8-tetrahydrobenzo[1,2-b:4,3-b']dipyrrol-2-yl]carbonyl]-3,6,7,8-tetrahydrobenzo[1,2-b:4,3-b']dipyrrol-2-yl]carbonyl]-3,6,7,8-tetrahydrobenzo[1,2-b:4,3-b']dipyrrol-2-yl]carbonyl]amino]propyl] ester (9CI) (CA INDEX NAME)

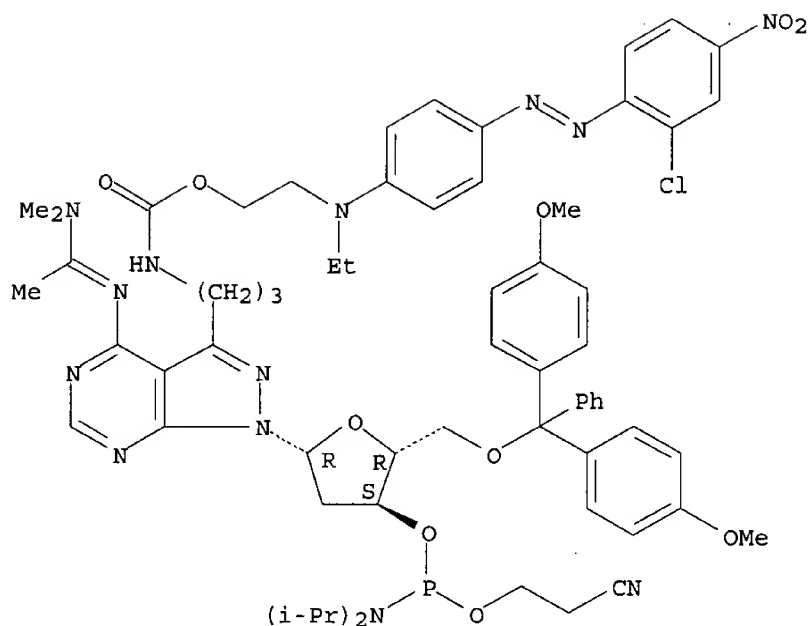




RN 344436-48-2 CAPLUS
 CN Carbamic acid, [3-[1-[5-O-[bis(4-methoxyphenyl)phenylmethyl]-3-O-[[bis(1-methylethyl)amino](2-cyanoethoxy)phosphino]-2-deoxy-.beta.-D-erythro-pentofuranosyl]-4-[[1-(dimethylamino)ethylidene]amino]-1H-pyrazolo[3,4-d]pyrimidin-3-yl]propyl]-, 2-[[4-[(2-chloro-4-nitrophenyl)azol]phenyl]ethylamino]ethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry unknown.

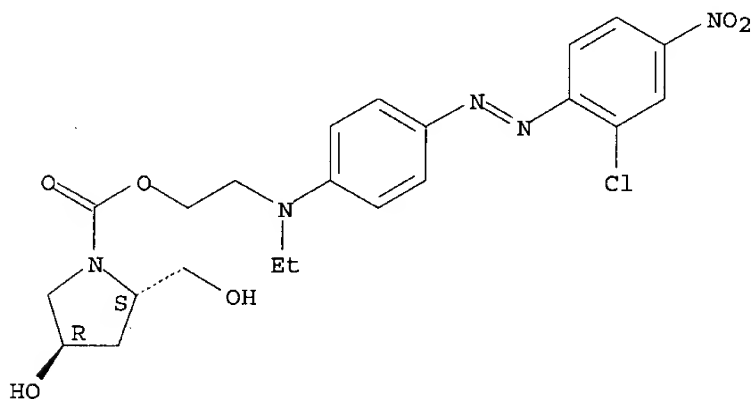
09567863



RN 344436-49-3 CAPLUS

CN 1-Pyrrolidinecarboxylic acid, 4-hydroxy-2-(hydroxymethyl)-, 2-[[4-[(2-chloro-4-nitrophenyl)azolphenyl]ethylamino]ethyl ester, (2S,4R)-(9CI) (CA INDEX NAME)

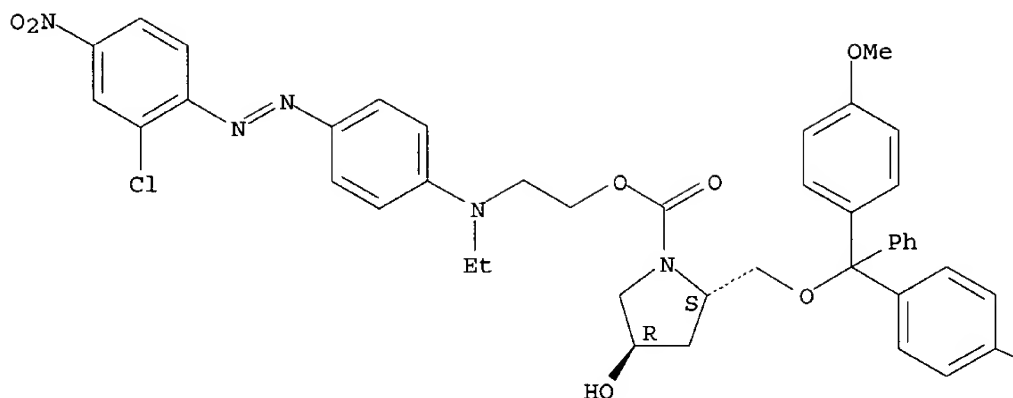
Absolute stereochemistry.
Double bond geometry unknown.



RN 344436-50-6 CAPLUS

CN 1-Pyrrolidinecarboxylic acid, 2-[[bis(4-methoxyphenyl)phenylmethoxy]methyl]-4-hydroxy-, 2-[[4-[(2-chloro-4-nitrophenyl)azolphenyl]ethylamino]ethyl ester, (2S,4R)-(9CI) (CA INDEX NAME)

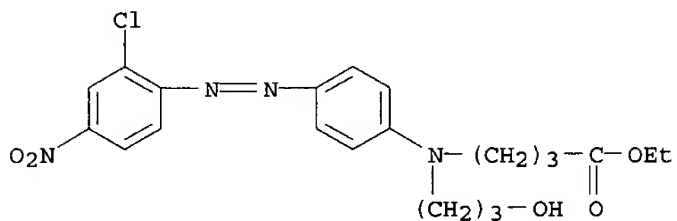
Absolute stereochemistry.
Double bond geometry unknown.



— OMe

RN 344436-55-1 CAPLUS

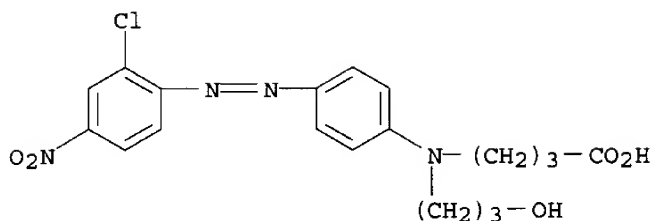
CN Butanoic acid, 4-[[4-[(2-chloro-4-nitrophenyl)azo]phenyl] (3-hydroxypropyl)amino]-, ethyl ester (9CI) (CA INDEX NAME)



RN 344436-56-2 CAPLUS

CN Butanoic acid, 4-[[4-[(2-chloro-4-nitrophenyl)azo]phenyl] (3-hydroxypropyl)amino]- (9CI) (CA INDEX NAME)

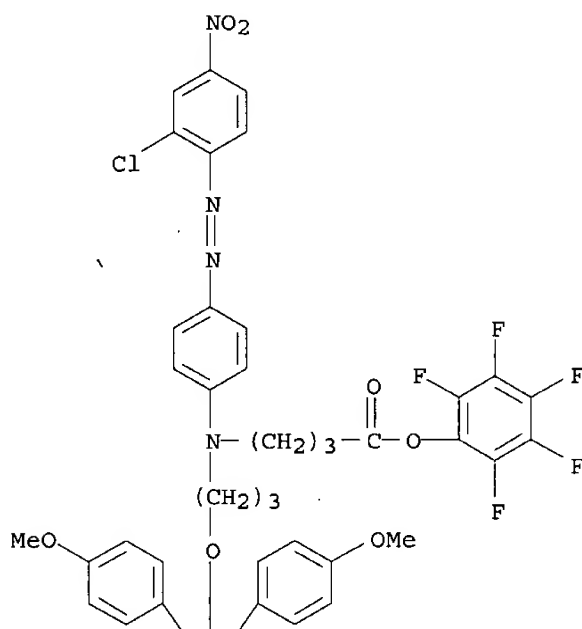
09567863



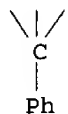
RN 344436-58-4 CAPLUS

CN Butanoic acid, 4-[[3-[bis(4-methoxyphenyl)phenylmethoxy]propyl][4-[(2-chloro-4-nitrophenyl)azo]phenyl]amino]-, pentafluorophenyl ester (9CI)
(CA INDEX NAME)

PAGE 1-A



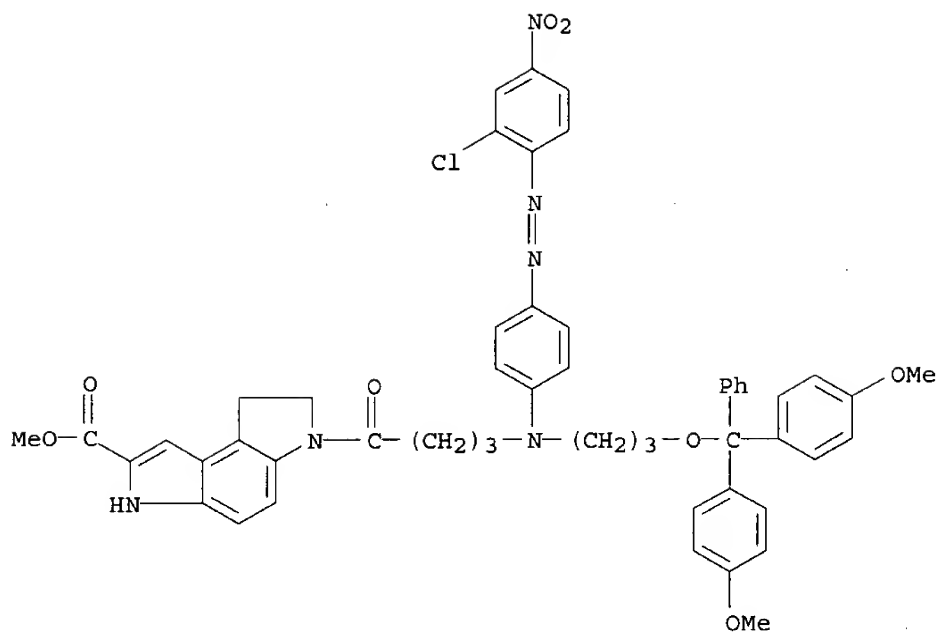
PAGE 2-A



RN 344436-59-5 CAPLUS

CN Benzo[1,2-b:4,3-b']dipyrrole-2-carboxylic acid, 6-[4-[[3-[bis(4-methoxyphenyl)phenylmethoxy]propyl][4-[(2-chloro-4-nitrophenyl)azo]phenyl]amino]-1-oxobutyl]-3,6,7,8-tetrahydro-, methyl ester (9CI) (CA INDEX NAME)

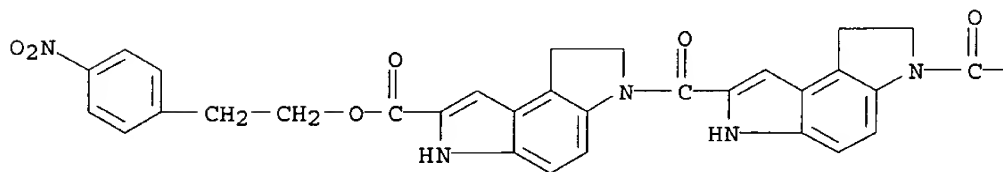
09567863

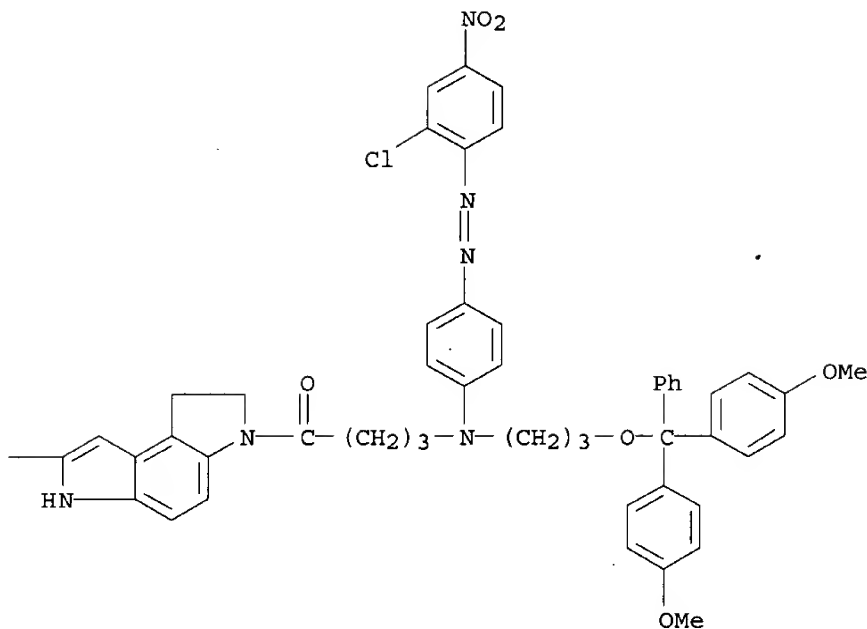


RN 344436-60-8 CAPLUS

CN Benzo[1,2-b:4,3-b']dipyrrole-2-carboxylic acid, 6-[[6-[[6-[4-[[3-[bis(4-methoxyphenyl)phenylmethoxy]propyl][4-[(2-chloro-4-nitrophenyl)azo]phenyl]amino]-1-oxobutyl]-3,6,7,8-tetrahydrobenzo[1,2-b:4,3-b']dipyrrol-2-yl]carbonyl]-3,6,7,8-tetrahydrobenzo[1,2-b:4,3-b']dipyrrol-2-yl]carbonyl]-3,6,7,8-tetrahydro-, 2-(4-nitrophenyl)ethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

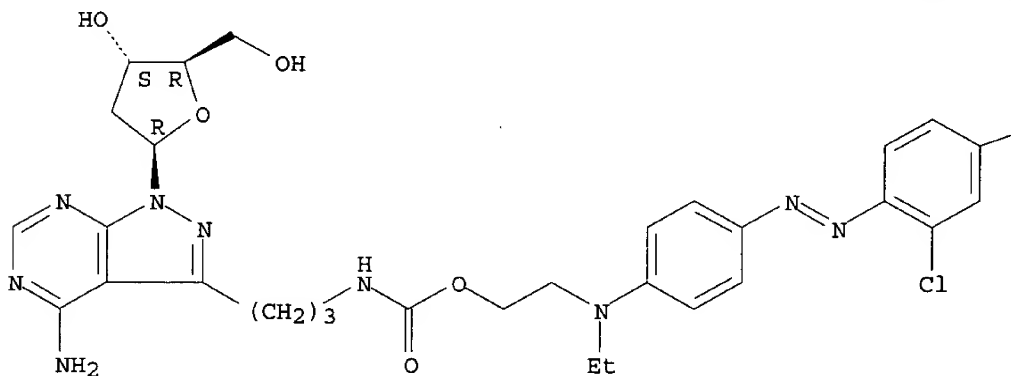




RN 344436-72-2 CAPLUS

CN Carbamic acid, [3-[4-amino-1-(2-deoxy-.beta.-D-erythro-pentofuranosyl)-1H-pyrazolo[3,4-d]pyrimidin-3-yl]propyl]-, 2-[[4-[(2-chloro-4-nitrophenyl)azo]phenyl]ethylamino]ethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.



—NO₂

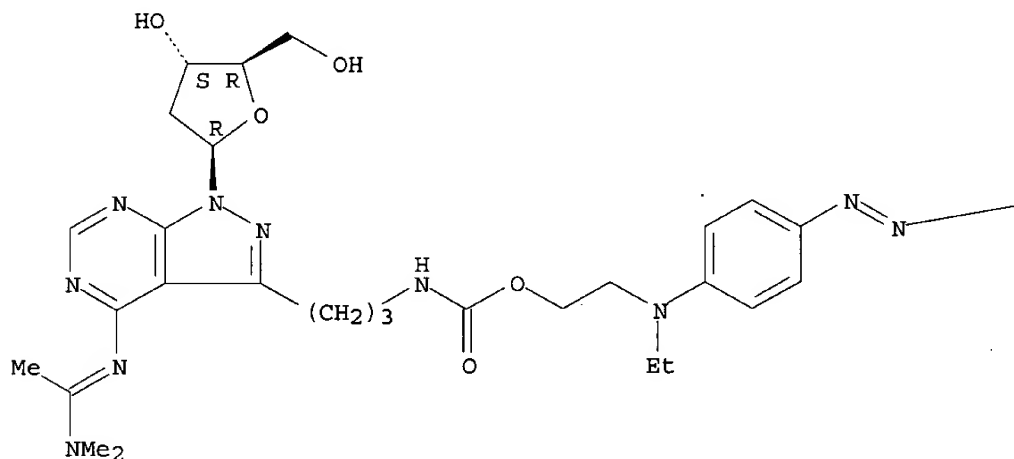
RN 344436-73-3 CAPLUS

09567863

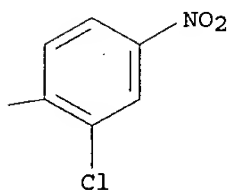
CN Carbamic acid, [3-[1-(2-deoxy-.beta.-D-erythro-pentofuranosyl)-4-[[1-(dimethylamino)ethylidene]amino]-1H-pyrazolo[3,4-d]pyrimidin-3-yl]propyl]-, 2-[[4-[(2-chloro-4-nitrophenyl)azo]phenyl]ethylamino]ethyl ester (9CI)
(CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A



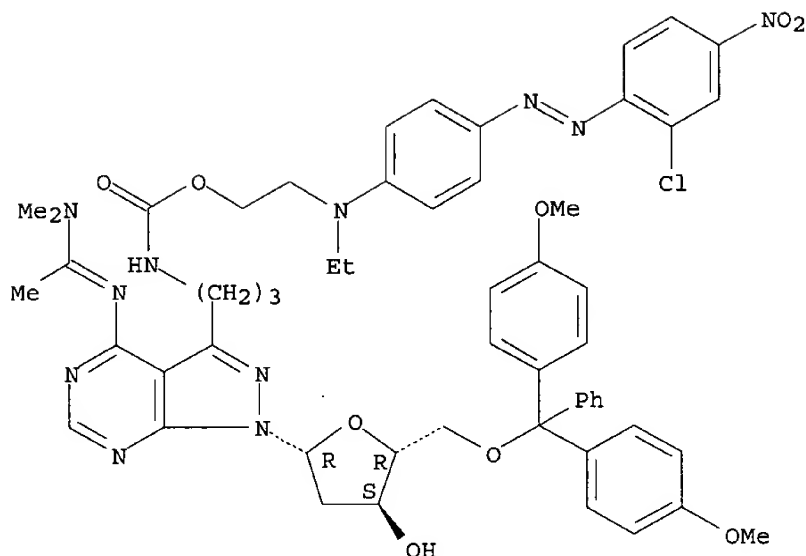
PAGE 1-B



RN 404887-20-3 CAPLUS

CN Carbamic acid, [3-[1-[5-O-[bis(4-methoxyphenyl)phenylmethyl]-2-deoxy-.beta.-D-erythro-pentofuranosyl]-4-[[1-(dimethylamino)ethylidene]amino]-1H-pyrazolo[3,4-d]pyrimidin-3-yl]propyl]-, 2-[[4-[(2-chloro-4-nitrophenyl)azo]phenyl]ethylamino]ethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.



RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 2 OF 96 CAPLUS COPYRIGHT 2003 ACS

AN 2002:869125 CAPLUS

DN 137:364362

TI PCR methods and primers for detection of retroviruses

IN Kim, Jong-Mook; Cho, Hongchan; Shim, Soomin; Kim, Sunyoung

PA Viromed Co., Ltd., S. Korea

SO PCT Int. Appl., 32 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002090587	A1	20021114	WO 2002-KR858	20020509
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRAI KR 2001-25476	A	20010510		

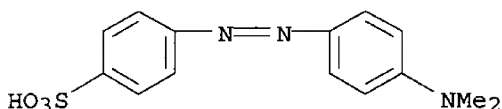
AB The present invention provides retrovirus-specific oligonucleotides and a method for measuring retroviral titer using same as primers in polymerase chain reaction (PCR). As the inventive method makes it possible to rapidly quantify measure retroviral DNA inserted into the genome of a target cell or the presence of retroviral RNA in a soln., it can be effectively used in the measurement of retroviral vector for gene therapy, the detection of replication competent retrovirus (RCR) in the sera of a subject receiving gene therapy, or the diagnosis of wild-type retrovirus.

IT 502-02-3D, probe conjugate

RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(dabsyl, as quencher dye; PCR methods and primers for detection of retroviruses)

09567863

RN 502-02-3 CAPLUS
CN Benzenesulfonic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)



RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 3 OF 96 CAPLUS COPYRIGHT 2003 ACS
AN 2002:808372 CAPLUS
DN 137:306986
TI Optical detection of transmembrane potential changes
IN Farinas, Javier A.
PA Caliper Technologies Corp., USA
SO U.S., 17 pp.
CODEN: USXXAM
DT Patent
LA English

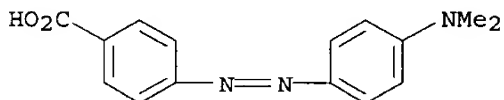
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6468763	B1	20021022	US 2000-661337	20000914
PRAI	US 1999-156639P	P	19990929		

AB Compns. for monitoring transmembrane potential across cellular membranes. The compns. typically comprise a cell having a plasma membrane that comprises a first leaflet and a second leaflet, the membrane comprising first and second membrane assocd. components which, when placed adjacent each other either produce or quench a fluorescent signal, wherein. The first membrane assocd. component translocates from a first leaflet of the membrane to a second leaflet of the membrane in response to an elec. potential gradient across the membrane, the first membrane assocd. component being selected from a non-fluorescent cationic fluorescence **quencher** a non-fluorescent anionic fluorescence **quencher** and a cationic fluorophore.

IT **6268-49-1D**, Dabcyl, conjugate with triphenylphosphonium derivs.
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(optical detection of transmembrane potential changes)

RN 6268-49-1 CAPLUS
CN Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)



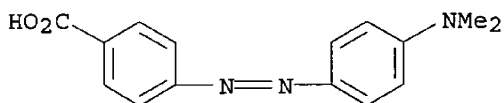
RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 4 OF 96 CAPLUS COPYRIGHT 2003 ACS
AN 2002:714224 CAPLUS
DN 137:243915
TI Assays for sequence-specific depurinating and depyrimidinating enzymes using molecular beacon substrates

09567863

IN Ayguen, Hueseyin; Wojczewski, Sylvia
 PA Viscum AG, Germany
 SO Eur. Pat. Appl., 32 pp.
 CODEN: EPXXDW
 DT Patent
 LA German
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1241267	A2	20020918	EP 2002-5362	20020314
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
PRAI	EP 2001-106265	A	20010314		
AB	A method of assaying for enzymes that remove purine or pyrimidine bases from nucleic acids in a sequence-specific manner without strand scission is described. The method uses a mol. beacon as a substrate. A stem-loop nucleic acid structure brings together a FRET pair of reporter dyes: a fluorophore and a quencher. As the bases are removed from the stem by the enzyme, the stem loses stability and the fluorophore is able to fluoresce. Use of a fluorescein/DABCYL pair to assay the rRNA N-glycosidase activity of viscumin is demonstrated.				
IT	6268-49-1D, DABCYL, oligonucleotide conjugates RL: ARU (Analytical role, unclassified); ANST (Analytical study) (reporter group; assays for sequence-specific depurinating and depyrimidinizing enzymes using mol. beacon substrates)				
RN	6268-49-1 CAPLUS				
CN	Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)				



L5 ANSWER 5 OF 96 CAPLUS COPYRIGHT 2003 ACS
 AN 2002:638197 CAPLUS
 DN 137:180749
 TI Detection of genetic polymorphisms using generic molecular beacon probes labeled with fluoresce dye-conjugated metallic or semiconductor nanoparticles
 IN Phillips, Vince; Watson, Andrew R.; Wong, Edith
 PA USA
 SO U.S. Pat. Appl. Publ., 27 pp.
 CODEN: USXXCO
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002115082	A1	20020822	US 2001-945379	20010831
PRAI	US 2000-230186P	P	20000901		
AB	Methods, compns. and articles of manuf. for assaying a sample for an amplification product from a target polynucleotide are provided. An amplification reaction is used to produce the amplification product from the target polynucleotide so that it can be used to indirectly assay the sample for the target polynucleotide. A sample suspected of contg. the target polynucleotide is contacted with first and second primers to amplify the target polynucleotide; the first primer comprises a tag sequence, the complement of which is formed on the opposite strand during amplification and is referred to as a capture sequence. That opposite				

strand is referred to as a second primer extension product or an amplification product. A generic probe polynucleotide is provided that is a mol. beacon and can bind to the capture sequence to form an amplification product detection complex. The mol. beacon probes can be labeled with fluoresce dye or metallic or semiconductor nanoparticles to increase the sensibility and specificity in the detection and enable multiplexing. Methods of detecting the amplification product detection complex thus produced are also provided, as are amplification product assay arrays, along with methods of forming the same. The methods are particularly useful in multiplex settings where a plurality of target polynucleotides are to be assayed. Kits comprising reagents for performing such methods are also provided.

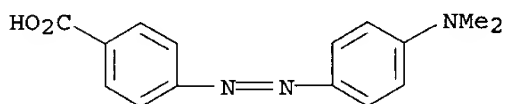
IT 6268-49-1, DABCYL 374591-92-1, BHQ-1 374591-96-5
, BHQ-2

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(conjugated to generic probes; detection of genetic polymorphisms using generic mol. beacon probes labeled with fluoresce dye-conjugated metallic or semiconductor nanoparticles)

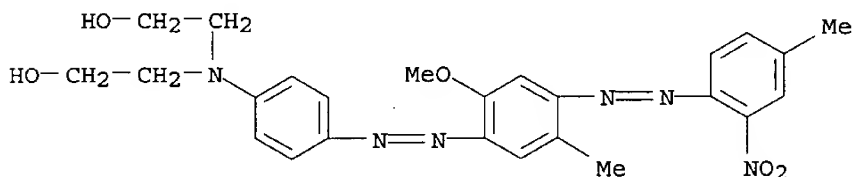
RN 6268-49-1 CAPLUS

CN Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)



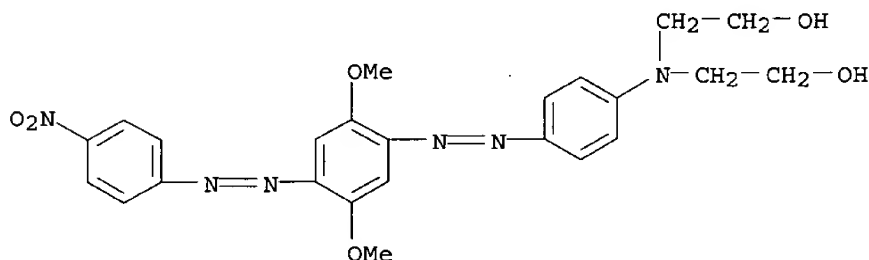
RN 374591-92-1 CAPLUS

CN Ethanol, 2,2'-[[4-[[2-methoxy-5-methyl-4-[(4-methyl-2-nitrophenyl)azo]phenyl]azo]phenyl]imino]bis- (9CI) (CA INDEX NAME)



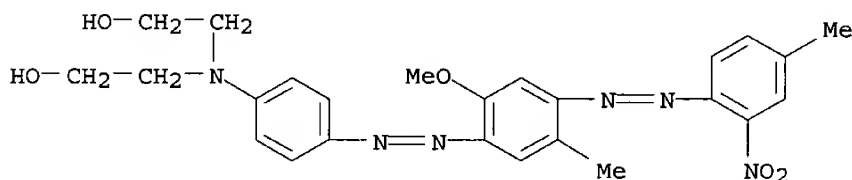
RN 374591-96-5 CAPLUS

CN Ethanol, 2,2'-[[4-[[2,5-dimethoxy-4-[(4-nitrophenyl)azo]phenyl]azo]phenyl]imino]bis- (9CI) (CA INDEX NAME)



09567863

AN 2002:635864 CAPLUS
TI Development of a multiplex real-time reverse transcriptase-polymerase chain reaction for equine infectious anemia virus (EIAV)
AU Cook, R. Frank; Cook, S. J.; Li, F.; Montelaro, R. C.; Issel, C. J.
CS Gluck Equine Research Center, Department of Veterinary Science, University of Kentucky, Lexington, KY, 40546-0099, USA
SO Journal of Virological Methods (2002), 105(1), 171-179
CODEN: JMVMDH; ISSN: 0166-0934
PB Elsevier Science B.V.
DT Journal
LA English
AB A single-tube reverse transcriptase-polymerase chain reaction (RT-PCR) using a fluorogenic real-time PCR detection method is described for the quantitation of equine infectious anemia virus (EIAV) RNA in the plasma of equids. To compensate for variations inherent in sample prepn. a multiplex real-time RT-PCR system was developed that permitted the simultaneous calcn. of the nucleic acid recovery rate along with the copy no. of viral RNA mols. Detection of EIAV RNA was linear from 109 to 101 mols. with intra- and inter-assay variability of less than 1% at 108, 106, 104 and 102 mols.
IT INDEXING IN PROGRESS
IT 374591-92-1D, Black Hole **Quencher** 1, oligonucleotide conjugate
RL: ARG (Analytical reagent use); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(development of a multiplex real-time reverse transcriptase-polymerase chain reaction for equine infectious anemia virus (EIAV))
RN 374591-92-1 CAPLUS
CN Ethanol, 2,2'-[[4-[[2-methoxy-5-methyl-4-[(4-methyl-2-nitrophenyl)azo]phenyl]azo]phenyl]imino]bis- (9CI) (CA INDEX NAME)



RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 7 OF 96 CAPLUS COPYRIGHT 2003 ACS
AN 2002:561862 CAPLUS
DN 137:334485
TI A Real-Time Fluorogenic Phospholipase A2 Assay for Biochemical and Cellular Activity Measurements
AU Feng, Li; Manabe, Kelly; Shope, Joseph C.; Widmer, Stanton; DeWald, Darryl B.; Prestwich, Glenn D.
CS Center for Cell Signaling, The University of Utah, Salt Lake City, UT, 84108, USA
SO Chemistry & Biology (2002), 9(7), 795-803
CODEN: CBOLE2; ISSN: 1074-5521
PB Cell Press
DT Journal
LA English
AB A fluorogenic analog of the PLA2 substrate phosphatidylcholine (PC), named Dabcyl-BODIPY-PC or simply DBPC, was synthesized with a fluorescence **quencher** (Dabcyl, 4-[(4-[N,N-dimethylamino]phenyl)azo]benzoic acid) in the sn-1 acyl chain and a BODIPY fluor in the sn-2 acyl chain.

DBPC was recognized by sPLA2 from each of the four sources examd. (bee venom, human synovial fluid, cobra venom, and bovine pancreas). A dramatic and quantifiable fluorescence enhancement of DBPC occurred upon phospholipase digestion both in the presence and absence of excess PC. Both real-time and endpoint assays for PLA2 were sensitive, consistent, and rapid. Thus, DBPC can be used as a sensitive fluorogenic probe for in vitro high-throughput screening assays for PLA2 activation and inhibition and would expedite studies of PLA2 in cellular signaling, in vitro screening for drug discovery, and subcellular localization of enzyme activity.

IT **473909-14-7P**

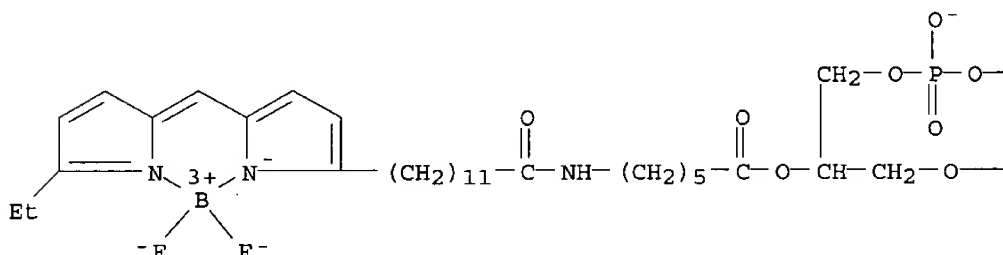
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(novel fluorogenic phosphatidylcholine analog is useful for biochem. and cellular activity assays of phospholipase A2)

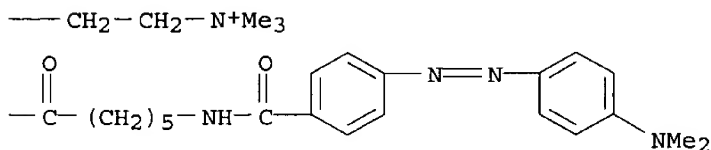
RN 473909-14-7 CAPLUS

CN Boron, [(7R)-7-[[[6-[[4-[[4-(dimethylamino)phenyl]azo]benzoyl]amino]-1-oxohexyl]oxy]methyl]-27-[5-[(5-ethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrol-2-yl-.kappa.N]-4-hydroxy-N,N,N-trimethyl-4-oxido-9,16-dioxo-3,5,8-trioxa-15-aza-4-phosphaheptacosan-1-aminiumato(2-)]difluoro-, (T-4)-(9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IT **146998-31-4**

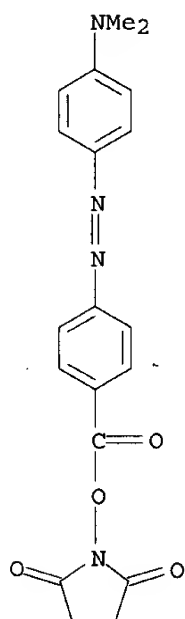
RL: RCT (Reactant); RACT (Reactant or reagent)

(novel fluorogenic phosphatidylcholine analog is useful for biochem. and cellular activity assays of phospholipase A2)

RN 146998-31-4 CAPLUS

CN 2,5-Pyrrolidinedione, 1-[[4-[[4-(dimethylamino)phenyl]azo]benzoyl]oxy]- (9CI) (CA INDEX NAME)

09567863



IT 473740-05-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

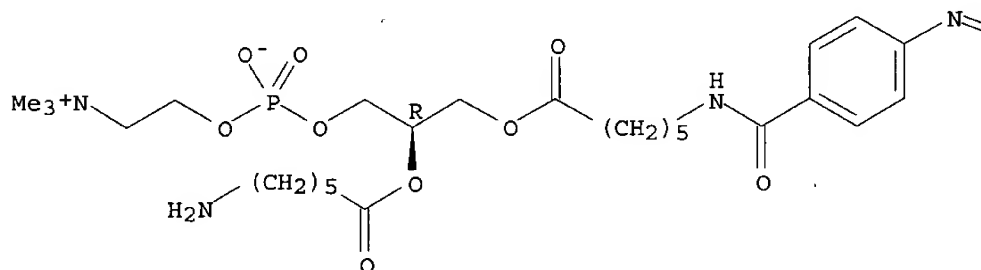
(novel fluorogenic phosphatidylcholine analog is useful for biochem. and cellular activity assays of phospholipase A2)

RN 473740-05-5 CAPLUS

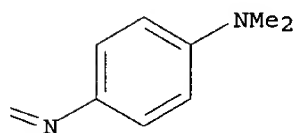
CN 9,13,15-Trioxa-2-aza-14-phosphaheptadecan-17-aminium, 11-[(6-amino-1'-oxohexyl)oxy]-1-[4-[[4-(dimethylamino)phenyl]azo]phenyl]-14-hydroxy-N,N,N-trimethyl-8-oxo-, inner salt, 14-oxide, (11R) - (9CI) (CA INDEX NAME)

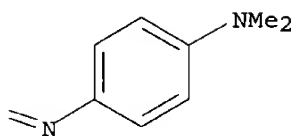
Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A



PAGE 1-B





RE.CNT 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 8 OF 96 CAPLUS COPYRIGHT 2003 ACS

AN 2002:488135 CAPLUS

DN 137:58560

TI Detn. of genotype at ornithine decarboxylase gene to assess susceptibility of individual to epithelial carcinogenesis

IN O'Brien, Thomas G.; Guo, Yong Jun

PA Lankenau Medical Research Center, USA

SO U.S. Pat. Appl. Publ., 28 pp., Cont.-in-part of U.S. Ser. No. 516,357.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002081611	A1	20020627	US 2001-911935	20010724
	US 6277581	B1	20010821	US 2000-516357	20000301
PRAI	US 2000-516357	A2	20000301		
	US 1999-122309P	P	19990301		

AB The invention includes kits and methods for assessing the susceptibility of a mammal such as a human for carcinogenesis. The methods comprise detg. whether the mammal comprises a certain allele of the mammal's ODC (ornithine decarboxylase) gene. The methods include use of a probe which binds specifically with a portion of one allele of the ODC gene and which comprises a fluorescent label and a fluorescence **quencher**. The methods also include use of such a probe and a polymerase enzyme for amplifying a portion of the ODC gene, the polymerase having exonuclease activity whereby the probe can be nucleolytically degraded. There are two major alleles of the human ODC gene (the A- and G-alleles) and homozygosity for the A-allele indicates an increased susceptibility to carcinogenesis, esp. in the epithelium.

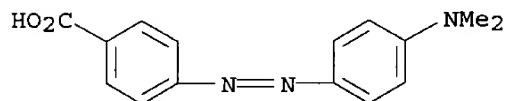
IT **6268-49-1D**, Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]-, conjugates with hybridization probes

RL: ARG (Analytical reagent use); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)

(Dabcyl; detn. of genotype at ornithine decarboxylase gene to assess susceptibility of individual to epithelial carcinogenesis)

RN 6268-49-1 CAPLUS

CN Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)



L5 ANSWER 9 OF 96 CAPLUS COPYRIGHT 2003 ACS

AN 2002:415296 CAPLUS

DN 137:105913

TI High throughput measurement of duplex, triplex and quadruplex melting

curves using molecular beacons and a lightcycler

AU Darby, Richard A. J.; Sollogoub, Matthieu; McKeen, Catherine; Brown, Lynda; Risitano, Antonina; Brown, Nicholas; Barton, Christopher; Brown, Tom; Fox, Keith R.

CS Division of Biochemistry and Molecular Biology, School of Biological Sciences, University of Southampton, Southampton, SO16 7PX, UK

SO Nucleic Acids Research (2002), 30(9), e39/1-e39/8
CODEN: NARHAD; ISSN: 0305-1048

PB Oxford University Press

DT Journal

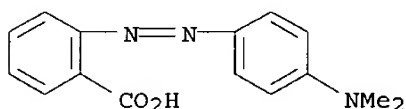
LA English

AB We have used oligonucleotides contg. mol. beacons to det. melting profiles for intramol. DNA duplexes, triplexes and quadruplexes (tetraplexes). The synthetic oligonucleotides used in these studies contain a fluorophore (fluorescein) and **quencher** (methyl red) attached either to deoxyribose or to the 5 position of dU. In the folded DNA structures the fluorophore and **quencher** are in close proximity and the fluorescence is quenched. When the structures melt, the fluorophore and **quencher** are sepd. and there is a large increase in fluorescence. These expts. were performed in a Roche Light-Cycler; this requires small amts. of material (typically 4 pmol oligonucleotide) and can perform 32 melting profiles in parallel. We have used this technique to compare the stability of triplexes contg. different base analogs and to confirm the selectivity of a triplex-binding ligand for triplex, rather than duplex, DNA. We have also compared the melting of inter- and intramol. quadruplexes.

IT 493-52-7, Methyl red
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(high throughput measurement of duplex, triplex and quadruplex melting curves using mol. beacons and lightcycler)

RN 493-52-7 CAPLUS

CN Benzoic acid, 2-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)



RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 10 OF 96 CAPLUS COPYRIGHT 2003 ACS

AN 2002:410866 CAPLUS

DN 137:101301

TI Degradation of o-nitroacetanilide by heterogeneous photocatalysis

AU Joshi, J. D.; Vora, Jabali; Sharma, Sangita; Patel, Chirag C.; Patel, Ashok

CS Department of Chemistry, Sardar Patel University, Vallabh Vidyanagar, 388 120, India

SO Asian Journal of Chemistry (2002), 14(2), 761-766
CODEN: AJCHEW; ISSN: 0970-7077

PB Asian Journal of Chemistry

DT Journal

LA English

AB The photocatalytic degrdn. of o-nitroacetanilide on semiconductor zinc oxide powder in heterogeneous conditions was studied. Conc. of substrate, amt. of semiconductor, pH, light intensity, sensitizers, etc. parameters were found to affect the kinetics of the degrdn. process. A probable mechanism for the process is proposed.

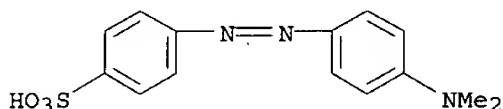
IT 547-58-0, Methyl orange

09567863

RL: NUU (Other use, unclassified); USES (Uses)
(sensitizer; photocatalytic degrdn. of o-nitroacetanilide on
semiconductor zinc oxide powder as function of reaction conditions and
reactants concn.)

RN 547-58-0 CAPLUS

CN Benzenesulfonic acid, 4-[[4-(dimethylamino)phenyl]azo]-, sodium salt (9CI)
(CA INDEX NAME)



● Na

RE.CNT 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 11 OF 96 CAPLUS COPYRIGHT 2003 ACS

AN 2002:408834 CAPLUS

DN 137:2231

TI Continuous assay for DNA cleavage with hairpin-forming oligonucleotide
"break lights" probes application to enediynes, iron-dependent agents, and
nucleases

IN Thorson, Jon S.; Prudent, James

PA Memorial Sloan-Kettering Cancer Center, USA

SO PCT Int. Appl., 58 pp.

CODEN: PIXXD2

DT Patent

LA English

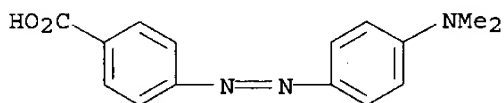
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002042497	A2	20020530	WO 2001-US44331	20011127
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	AU 2002039353	A5	20020603	AU 2002-39353	20011127
	US 2002187484	A1	20021212	US 2001-993757	20011127
PRAI	US 2000-253382P	P	20001127		
	WO 2001-US44331	W	20011127		

AB Modified hairpin-forming oligonucleotide to continuously assess nucleotide cleavage by enediynes and other nucleic acid cleavage agents are provided. These oligonucleotide probes, which are also referred to herein as "mol. break lights", are also useful for continuous assessment of protection of nucleotides from cleavage agents. In certain embodiments, the processes comprise: a. incubating the sample with a probe, the probe comprising: an oligonucleotide that forms a stem loop structure, a fluorophore, and a **quencher**, wherein the fluorophore and the **quencher** are positioned such that the fluorophore fluoresces less when the probe is intact than when the probe is cleaved; b. measuring the level of fluorescence of the probe; and c. correlating amt. of fluorescence with

activity of the nucleic acid cleavage agent. The nucleic acid cleavage agent may be, e.g., an enzyme, such as a nuclease. Examples of nucleases the activity or presence of which may be assayed using the processes and probes of the present invention include exonucleases and endonucleases, such as restriction endonucleases. Other examples of nucleic acid cleavage agents the activity or presence may be assayed using the processes and probes of the present invention include small mols., and enediynes. Although extensive effort has been applied toward understanding the mechanism by which enediynes cleave DNA, a continuous assay for this phenomenon is still lacking. In fact, with the exception of assays for DNase, continuous assays for most DNA cleavage events are unavailable. This article describes the application of "mol. break lights" (a single-stranded oligonucleotide that adopts a stem-and-loop structure and carries a 5'-fluorescent moiety, a 3'-nonfluorescent quenching moiety, and an appropriate cleavage site within the stem) to develop the first continuous assay for cleavage of DNA by enediynes. Furthermore, the generality of this approach is demonstrated by using the described assay to directly compare the DNA cleavage by naturally occurring enediynes (calicheamicin and esperamicin), non-enediyne small mol. agents [bleomycin, methidiumpropyl-EDTA-Fe(II), and EDTA-Fe(II)], as well as the restriction endonuclease BamHI. Given the simplicity, speed, and sensitivity of this approach, the described methodol. could easily be extended to a high throughput format and become a new method of choice in modern drug discovery to screen for novel protein-based or small mol.-derived DNA cleavage agents. Mol. break light probe A was used to assay CalC inhibition of nucleotide cleavage by calicheamicin.

IT 6268-49-1, 4-(4'-(Dimethylaminophenylazo)benzoic acid
 RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
 (3'-**quencher**; continuous assay for DNA cleavage with
 hairpin-forming oligonucleotide "break lights" probes application to
 enediynes, iron-dependent agents, and nucleases)
 RN 6268-49-1 CAPLUS
 CN Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)



L5 ANSWER 12 OF 96 CAPLUS COPYRIGHT 2003 ACS
 AN 2002:394788 CAPLUS
 DN 138:21243
 TI A peptide-based fluorescence resonance energy transfer assay for Bacillus anthracis lethal factor protease
 AU Cummings, Richard T.; Salowe, Scott P.; Cunningham, Barry R.; Wiltsie, Judyann; Park, Young Whan; Sonatore, Lisa M.; Wisniewski, Douglas; Douglas, Cameron M.; Hermes, Jeffrey D.; Scolnick, Edward M.
 CS Department of High Throughput Screening and Automation, Merck Research Laboratories, Rahway, NJ, 07065-0900, USA
 SO Proceedings of the National Academy of Sciences of the United States of America (2002), 99(10), 6603-6606
 CODEN: PNASA6; ISSN: 0027-8424
 PB National Academy of Sciences
 DT Journal
 LA English
 AB A fluorescence resonance energy transfer assay has been developed for monitoring Bacillus anthracis lethal factor (LF) protease activity. A fluorogenic 16-mer peptide based on the known LF protease substrate MEK1 was synthesized and found to be cleaved by the enzyme at the anticipated

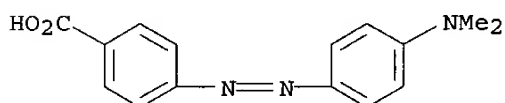
site. Extension of this work to a fluorogenic 19-mer peptide, derived, in part, from a consensus sequence of known LF protease targets, produced a much better substrate, cleaving approx. 100 times more efficiently. This peptide sequence was modified further on resin to incorporate donor/**quencher** pairs to generate substrates for use in fluorescence resonance energy transfer-based appearance assays. All peptides cleaved at similar rates with signal/background ranging from 9-16 at 100% turnover. One of these substrates, denoted (Cou)Consensus(K(QSY-35)GG)-NH₂, was selected for addnl. assay optimization. A plate-based assay requiring only low nanomolar levels of enzyme was developed for screening and inhibitor characterization.

IT 6268-49-1

RL: BSU (Biological study, unclassified); BIOL (Biological study)
(peptide-based fluorescence resonance energy transfer assay for
Bacillus anthracis lethal factor protease)

RN 6268-49-1 CAPLUS

CN Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)



RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 13 OF 96 CAPLUS COPYRIGHT 2003 ACS

AN 2002:373423 CAPLUS

DN 137:58223

TI Intramolecular Dimers: A New Strategy to Fluorescence Quenching in
Dual-Labeled Oligonucleotide Probes

AU Johansson, Mary Katherine; Fidler, Henk; Dick, Daren; Cook, Ronald M.

CS Biosearch Technologies, Novato, CA, 94949, USA

SO Journal of the American Chemical Society (2002), 124(24), 6950-6956

CODEN: JACSAT; ISSN: 0002-7863

PB American Chemical Society

DT Journal

LA English

AB Many genomics assays use profluorescent oligonucleotide probes that are covalently labeled at the 5' end with a fluorophore and at the 3' end with a **quencher**. It is generally accepted that quenching in such probes without a stem structure occurs through Forster resonance energy transfer (FRET or FET) and that the fluorophore and **quencher** should be chosen to maximize their spectral overlap. We have studied two dual-labeled probes with two different fluorophores, the same sequence and **quencher**, and with no stem structure: 5'-Cy3.5-.beta.-actin-3'-BHQ1 and 5'-FAM-.beta.-actin-3'-BHQ1. Anal. of their absorption spectra, relative fluorescence quantum yields, and fluorescence lifetimes shows that static quenching occurs in both of these dual-labeled probes and that it is the dominant quenching mechanism in the Cy3.5-BHQ1 probe. Absorption spectra are consistent with the formation of an excitonic dimer, an intramol. heterodimer between the Cy3.5 fluorophore and the BHQ1 **quencher**.

IT 374591-92-1D, BHQ 1, conjugates with Cy3.5- and
fluorescein-labeled oligonucleotides

RL: PRP (Properties)

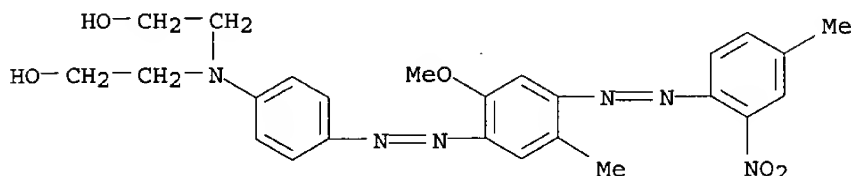
(fluorescence quenching by intramol. dimer formation in dual-labeled
oligonucleotide probes)

RN 374591-92-1 CAPLUS

CN Ethanol, 2,2'-[[4-[[2-methoxy-5-methyl-4-[(4-methyl-2-

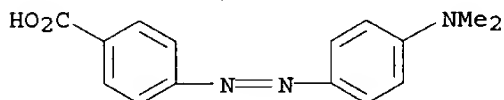
09567863

nitrophenyl]azo]phenyl]azo]phenyl]imino]bis- (9CI) (CA INDEX NAME)



RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 14 OF 96 CAPLUS COPYRIGHT 2003 ACS
AN 2002:339132 CAPLUS
DN 137:211420
TI Stem-loop oligonucleotides: a robust tool for molecular biology and biotechnology
AU Broude, Natalia E.
CS Center for Advanced Biotechnology and Dept of Biomedical Engineering, Boston University, Boston, MA, 02215, USA
SO Trends in Biotechnology (2002), 20(6), 249-256
CODEN: TRBIDM; ISSN: 0167-7799
PB Elsevier Science Ltd.
DT Journal; General Review
LA English
AB A review. The specific structural features of stem-loop (hairpin) DNA constructs provide increased specificity of target recognition. Recently, several robust assays have been developed that exploit the potential of structurally constrained oligonucleotides to hybridize with their cognate targets. Here, this paper reviews new diagnostic approaches based on the formation of stem-loop DNA oligonucleotides: mol. beacon methodol., suppression PCR approaches and the use of hairpin probes in DNA microarrays. The advantages of these techniques over existing ones for sequence-specific DNA detection, amplification and manipulation are discussed.
IT 6268-49-1, 4-(4'-Dimethylaminophenylazo)benzoic acid
RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(stem-loop oligonucleotides as tool for mol. biol. and biotechnol.)
RN 6268-49-1 CAPLUS
CN Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)



RE.CNT 75 THERE ARE 75 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 15 OF 96 CAPLUS COPYRIGHT 2003 ACS
AN 2002:221154 CAPLUS
DN 136:258286
TI Oligonucleotide-quencher-fluorescent dye conjugates and their use in nucleic acid hybridization
IN Reed, Michael W.; Lukhtanov, Eugeny Alexander; Gall, Alexander A.; Dempcy,

09567863

Robert O.; Vermeulen, Nicolaas M. J.

PA USA

SO U.S. Pat. Appl. Publ., 63 pp., Cont.-in-part of U. S. Ser. No. 457,616.

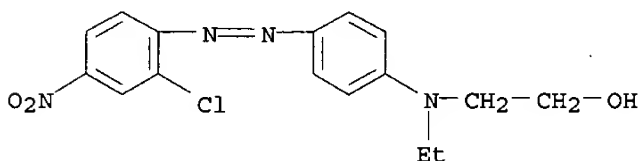
CODEN: USXXCO

DT Patent

LA English

FAN.CNT 3

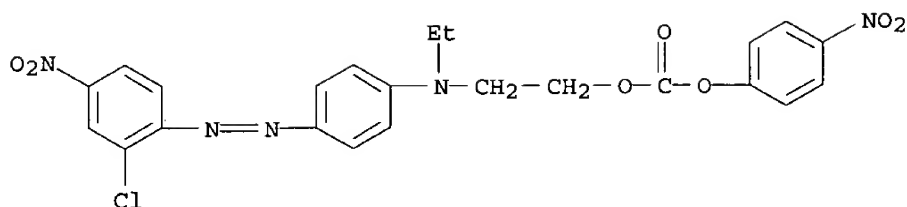
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002034754	A1	20020321	US 2001-876830	20010606
	US 2003008304	A1	20030109	US 2002-84818	20020226
	US 2002155484	A1	20021024	US 2002-93769	20020307
	WO 2002099141	A1	20021212	WO 2002-US17787	20020605
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRAI	US 1999-457616	A2	19991208		
	US 2001-876830	A3	20010606		
	US 2002-113445	A	20020329		
OS	MARPAT 136:258286				
AB	The invention relates to oligonucleotide- quencher -fluorescent dye conjugates having improved characteristics, and to reagents suitable for incorporating novel quencher and fluorescent dye moieties into oligonucleotides. The invention also related to the use of oligonucleotide- quencher -fluorescent dye conjugates in detection methods for nucleic acid targets. Thus, a 14-nucleotide probe having a fluorescein moiety at the 5'-terminal and a minor groove binder and phenylazophenyl deriv. at the 3'-terminus was prep'd. and used in SNP detection of RRM1 alleles by PCR.				
IT	3180-81-2 , Disperse Red 13 404887-21-4 RL: RCT (Reactant); RACT (Reactant or reagent) (oligonucleotide- quencher -fluorescent dye conjugates and their use in nucleic acid hybridization)				
RN	3180-81-2 CAPLUS				
CN	Ethanol, 2-[[4-[(2-chloro-4-nitrophenyl)azo]phenyl]ethylamino]- (9CI) (CA INDEX NAME)				



RN 404887-21-4 CAPLUS

CN Carbonic acid, 2-[[4-[(2-chloro-4-nitrophenyl)azo]phenyl]ethylamino]ethyl 4-nitrophenyl ester (9CI) (CA INDEX NAME)

09567863



IT 344436-39-1P 344436-42-6P 344436-43-7P
344436-44-8DP, conjugates with CPG 344436-48-2P
344436-49-3P 344436-50-6P 344436-55-1P
344436-56-2P 344436-57-3P 344436-58-4P
344436-59-5P 344436-72-2P 344436-73-3P
404887-16-7DP, conjugates with CPG 404887-17-8P
404887-20-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

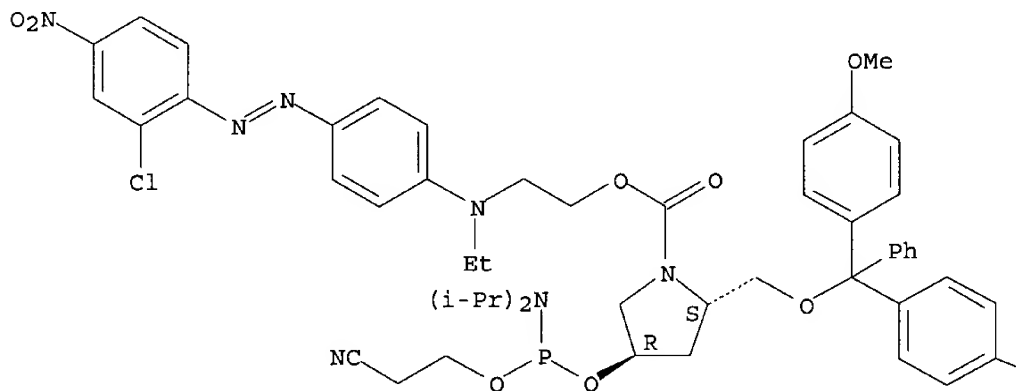
(oligonucleotide-**quencher**-fluorescent dye conjugates and their use in nucleic acid hybridization)

RN 344436-39-1 CAPLUS

CN 1-Pyrrolidinecarboxylic acid, 2-[[bis(4-methoxyphenyl)phenylmethoxy]methyl]-4-[[[bis(1-methylethyl)amino](2-cyanoethoxy)phosphino]oxy]-, 2-[[4-[(2-chloro-4-nitrophenyl)azo]phenyl]ethylamino]ethyl ester, (2S,4R)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A

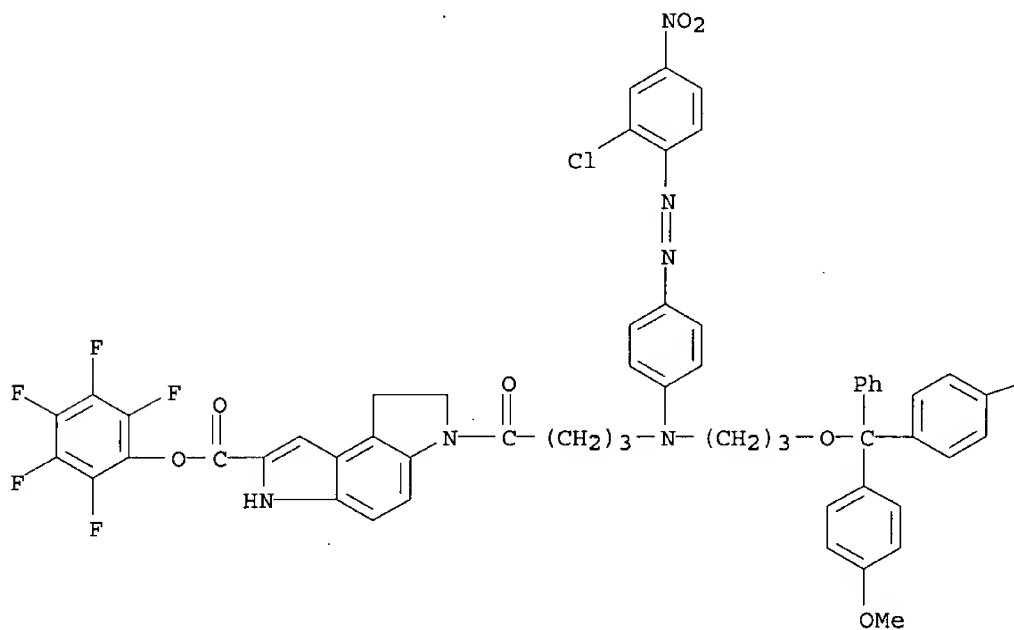


— OMe

RN 344436-42-6 CAPLUS

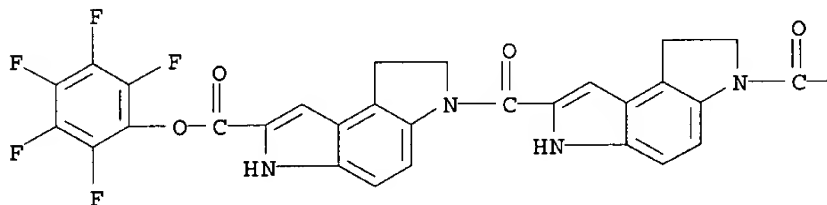
CN Benzo[1,2-b:4,3-b']dipyrrole-2-carboxylic acid, 6-[4-[[3-[bis(4-methoxyphenyl)phenylmethoxy]propyl] [4-[(2-chloro-4-nitrophenyl)azo]phenyl]amino]-1-oxobutyl]-3,6,7,8-tetrahydro-, pentafluorophenyl ester (9CI) (CA INDEX NAME)

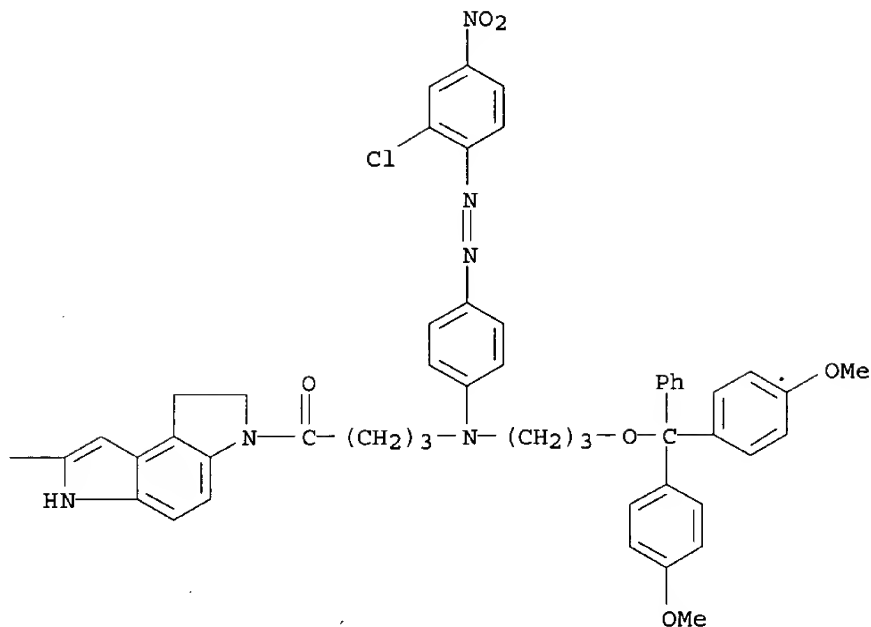
PAGE 1-A



— OMe

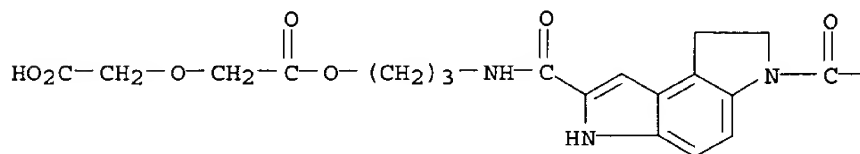
RN 344436-43-7 CAPLUS
CN Benzo[1,2-b:4,3-b']dipyrrole-2-carboxylic acid, 6-[[6-[[6-[4-[3-[bis(4-methoxyphenyl)phenylmethoxy]propyl] 4-[(2-chloro-4-nitrophenyl)azo]phenyl]amino]-1-oxobutyl]-3,6,7,8-tetrahydrobenzo[1,2-b:4,3-b']dipyrrol-2-yl]carbonyl]-3,6,7,8-tetrahydrobenzo[1,2-b:4,3-b']dipyrrol-2-yl]carbonyl]-3,6,7,8-tetrahydro-, pentafluorophenyl ester (9CI) (CA INDEX NAME)

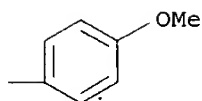
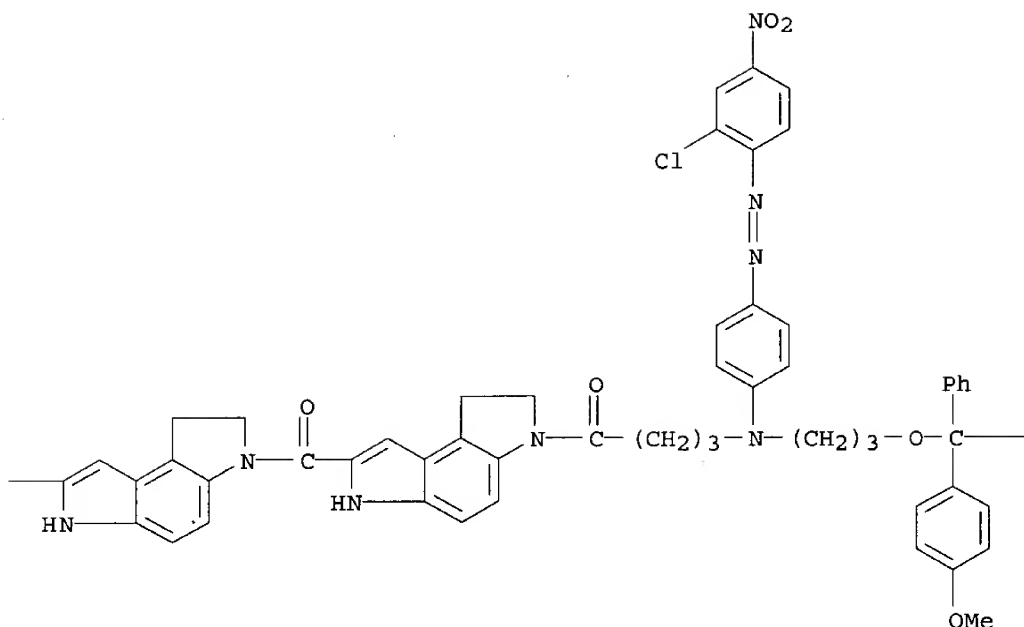




RN 344436-44-8 CAPLUS

CN Acetic acid, (carboxymethoxy)-, 1-[3-[[[6-[[6-[[6-[4-[[3-[bis(4-methoxyphenyl)phenylmethoxy]propyl][4-[[2-chloro-4-nitrophenyl]azo]phenyl]amino]-1-oxobutyl]-3,6,7,8-tetrahydrobenzo[1,2-b:4,3-b']dipyrrol-2-yl]carbonyl]-3,6,7,8-tetrahydrobenzo[1,2-b:4,3-b']dipyrrol-2-yl]carbonyl]-3,6,7,8-tetrahydrobenzo[1,2-b:4,3-b']dipyrrol-2-yl]carbonyl]amino]propyl] ester (9CI) (CA INDEX NAME)

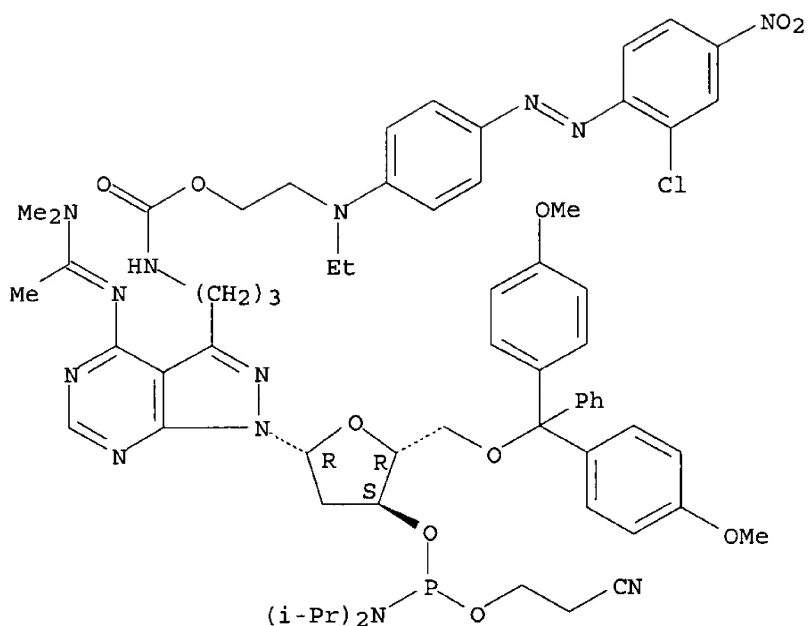




RN 344436-48-2 CAPLUS
 CN Carbamic acid, [3-[1-[5-O-[bis(4-methoxyphenyl)phenylmethyl]-3-O-[[bis(1-methylethyl)amino](2-cyanoethoxy)phosphino]-2-deoxy-.beta.-D-erythro-pentofuranosyl]-4-[[1-(dimethylamino)ethylidene]amino]-1H-pyrazolo[3,4-d]pyrimidin-3-yl]propyl]-, 2-[[4-[(2-chloro-4-nitrophenyl)azolphenyl]ethylamino]ethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry unknown.

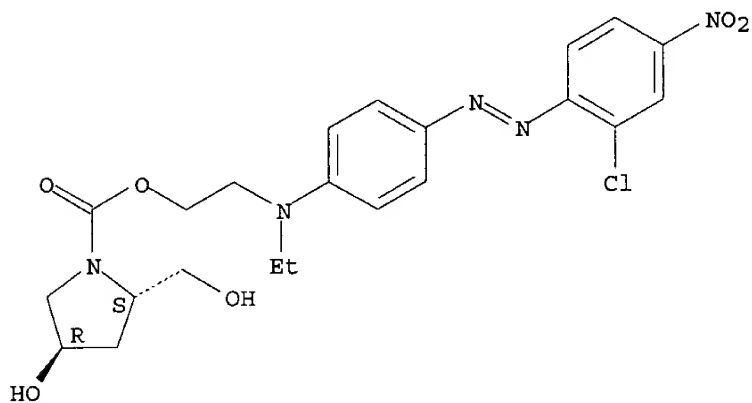
09567863



RN 344436-49-3 CAPLUS

CN 1-Pyrrolidinecarboxylic acid, 4-hydroxy-2-(hydroxymethyl)-,
2-[[4-[(2-chloro-4-nitrophenyl)azo]phenyl]ethylamino]ethyl ester, (2*S*,4*R*)-
(9CI) (CA INDEX NAME)

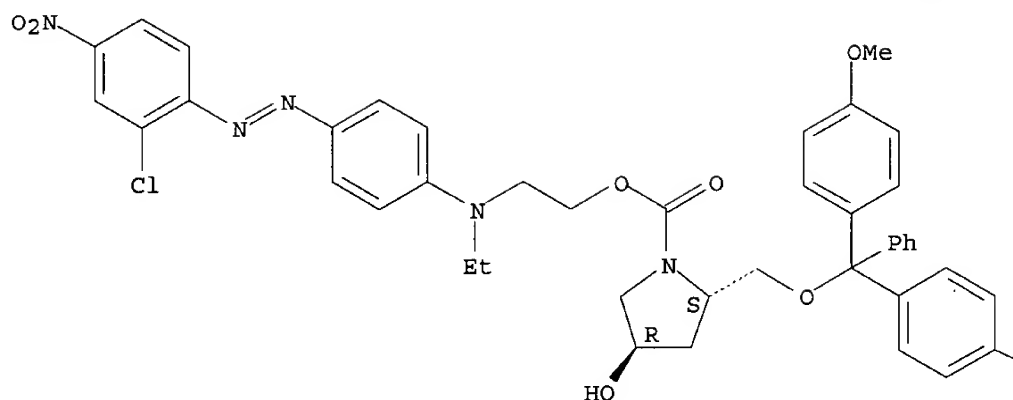
Absolute stereochemistry.
Double bond geometry unknown.



RN 344436-50-6 CAPLUS

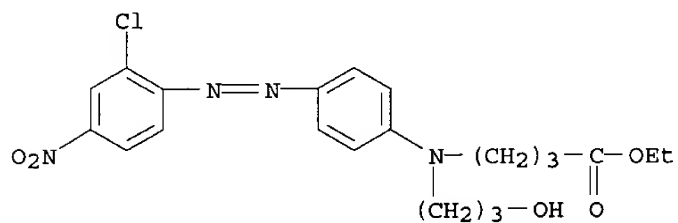
CN 1-Pyrrolidinecarboxylic acid, 2-[[bis(4-methoxyphenyl)phenylmethoxy]methyl
]-4-hydroxy-, 2-[[4-[(2-chloro-4-nitrophenyl)azo]phenyl]ethylamino]ethyl
ester, (2*S*,4*R*)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.



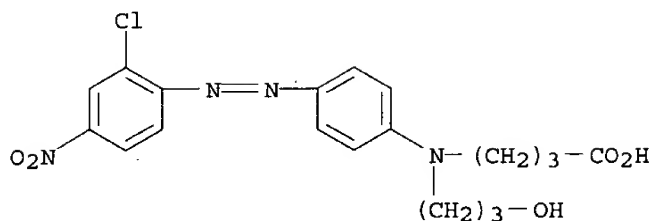
— OMe

RN 344436-55-1 CAPLUS
 CN Butanoic acid, 4-[[4-[(2-chloro-4-nitrophenyl)azo]phenyl] (3-hydroxypropyl)amino]-, ethyl ester (9CI) (CA INDEX NAME)



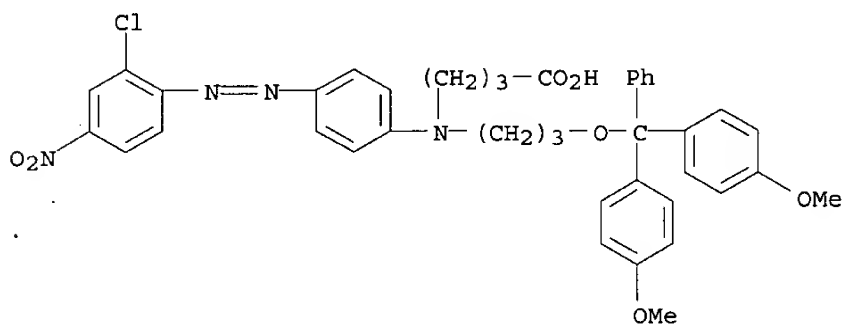
RN 344436-56-2 CAPLUS
 CN Butanoic acid, 4-[[4-[(2-chloro-4-nitrophenyl)azo]phenyl] (3-hydroxypropyl)amino]- (9CI) (CA INDEX NAME)

09567863



RN 344436-57-3 CAPLUS

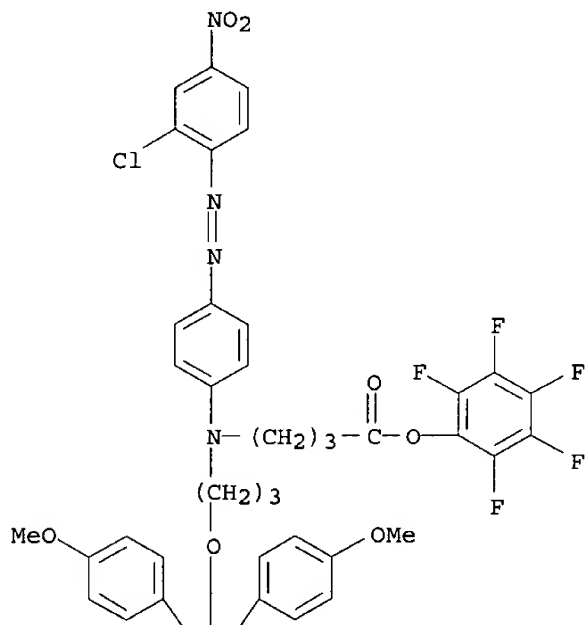
CN Butanoic acid, 4-[[3-[[bis(4-methoxyphenyl)phenylmethoxy]propyl][4-[(2-chloro-4-nitrophenyl)azo]phenyl]amino]- (9CI) (CA INDEX NAME)



RN 344436-58-4 CAPLUS

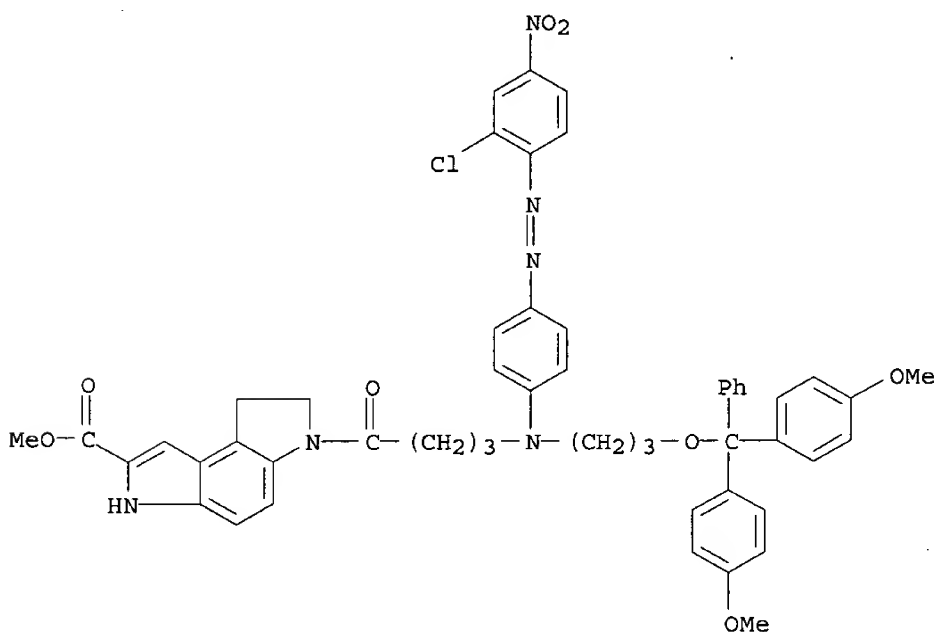
CN Butanoic acid, 4-[[3-[[bis(4-methoxyphenyl)phenylmethoxy]propyl][4-[(2-chloro-4-nitrophenyl)azo]phenyl]amino]-, pentafluorophenyl ester (9CI) (CA INDEX NAME)

PAGE 1-A



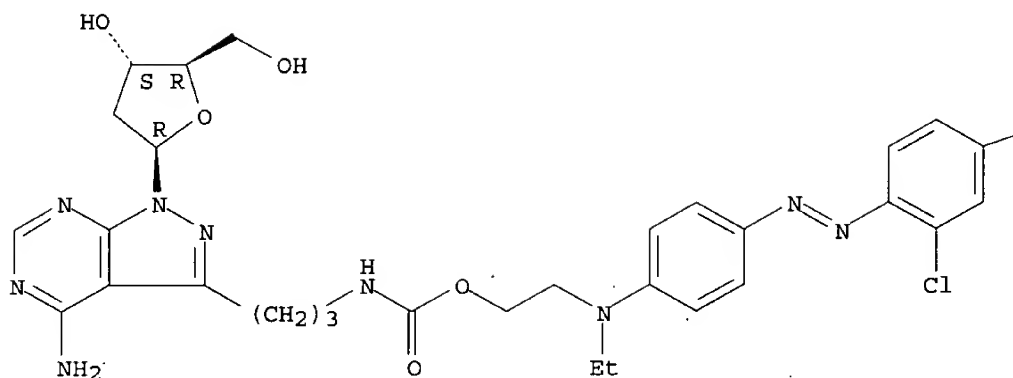


RN 344436-59-5 CAPLUS
 CN Benzo[1,2-b:4,3-b']dipyrrole-2-carboxylic acid, 6-[4-[[3-[bis(4-methoxyphenyl)phenylmethoxy]propyl] [4-[(2-chloro-4-nitrophenyl)azo]phenyl]amino]-1-oxobutyl]-3,6,7,8-tetrahydro-, methyl ester (9CI) (CA INDEX NAME)



RN 344436-72-2 CAPLUS
 CN Carbamic acid, [3-[4-amino-1-(2-deoxy-.beta.-D-erythro-pentofuranosyl)-1H-pyrazolo[3,4-d]pyrimidin-3-yl]propyl]-, 2-[[4-[(2-chloro-4-nitrophenyl)azo]phenyl]ethylamino]ethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry unknown.

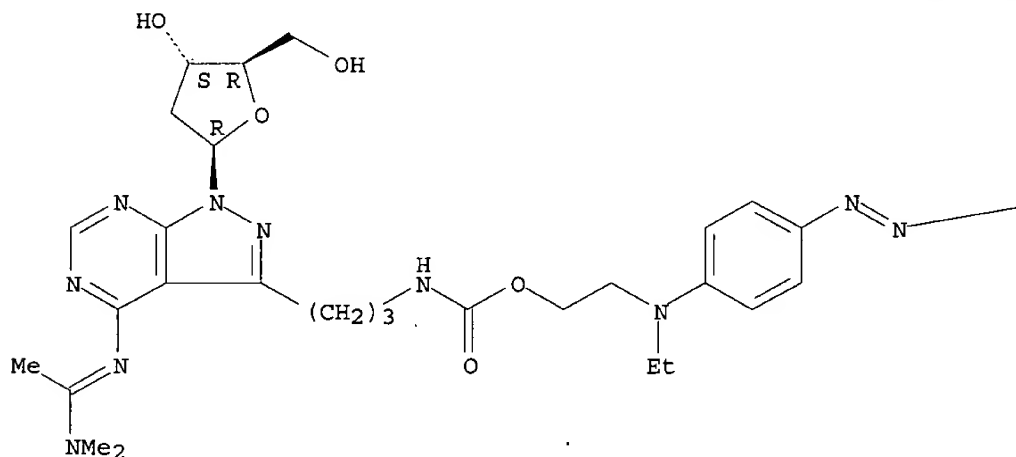


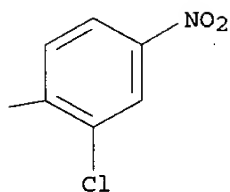
/NO2

RN 344436-73-3 CAPLUS

CN Carbamic acid, [3-[1-(2-deoxy-.beta.-D-erythro-pentofuranosyl)-4-[[1-(dimethylamino)ethylidene]amino]-1H-pyrazolo[3,4-d]pyrimidin-3-yl]propyl]-, 2-[[4-[(2-chloro-4-nitrophenyl)azo]phenyl]ethylamino]ethyl ester (9CI)
(CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

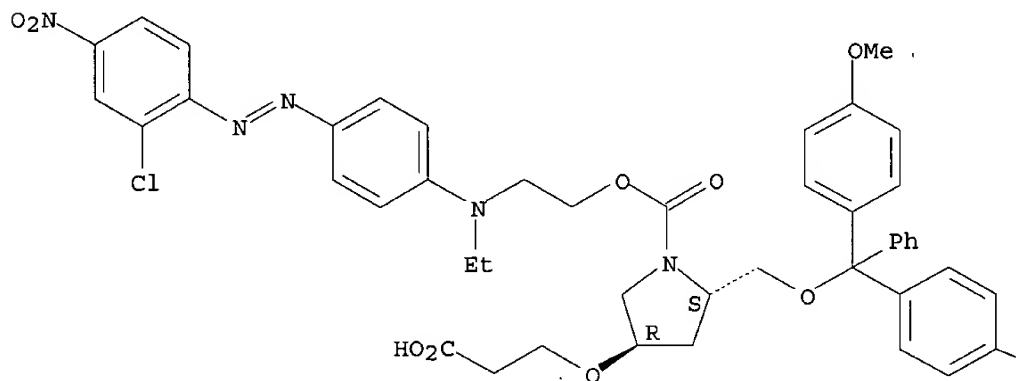




RN 404887-16-7 CAPLUS

CN 1-Pyrrolidinecarboxylic acid, 2-[[bis(4-methoxyphenyl)phenylmethoxy]methyl]-4-(2-carboxyethoxy)-, 1-[2-[[4-[(2-chloro-4-nitrophenyl)azo]phenyl]ethylamino]ethyl] ester, (2S,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.



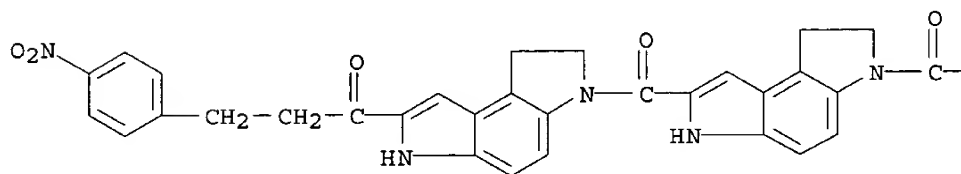
OMe

09567863

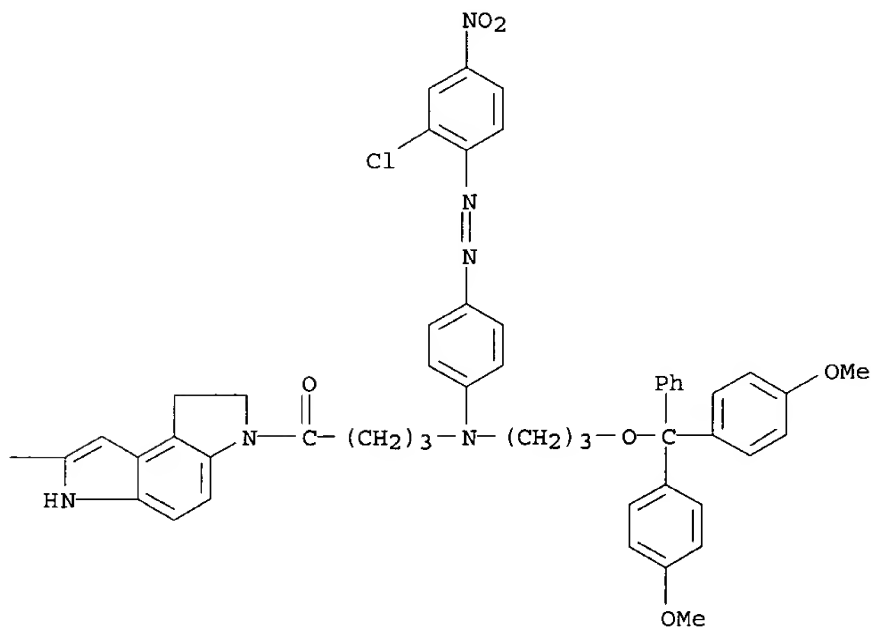
RN 404887-17-8 CAPLUS

CN Benzo[1,2-b:4,3-b']dipyrrole, 3-[[6-[4-[[4-[(2-chloro-4-nitrophenyl)azo]phenyl][3-[bis(4-methoxyphenyl)phenylmethoxy]propyl]amino]-1-oxobutyl]-3,6,7,8-tetrahydrobenzo[1,2-b:4,3-b']dipyrrol-2-yl]carbonyl]-7-[[1,6-dihydro-7-[3-(4-nitrophenyl)-1-oxopropyl]benzo[1,2-b:4,3-b']dipyrrol-3(2H)-yl]carbonyl]-1,2,3,6-tetrahydro- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



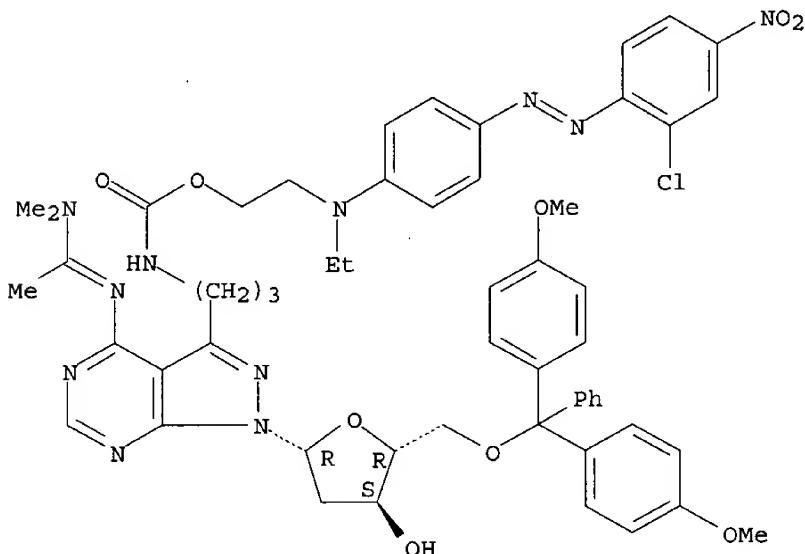
09567863

RN 404887-20-3 CAPLUS

CN Carbamic acid, [3-[1-[5-O-[bis(4-methoxyphenyl)phenylmethyl]-2-deoxy-.beta.-D-erythro-pentofuranosyl]-4-[[1-(dimethylamino)ethylidene]amino]-1H-pyrazolo[3,4-d]pyrimidin-3-yl]propyl]-, 2-[[4-[(2-chloro-4-nitrophenyl)azo]phenyl]ethylamino]ethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry unknown.



L5 ANSWER 16 OF 96 CAPLUS COPYRIGHT 2003 ACS

AN 2002:172235 CAPLUS

DN 136:213182

TI Methods employing fluorescence quenching by metal surfaces

IN Dubertret, Benoit; Calame, Michel; Libchaber, Albert

PA The Rockefeller University, USA

SO PCT Int. Appl., 62 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002018951	A2	20020307	WO 2001-US41941	20010829
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	AU 2001093232	A5	20020313	AU 2001-93232	20010829
PRAI	US 2000-228728P	P	20000829		
	US 2001-280350P	P	20010330		
	WO 2001-US41941	W	20010829		

AB The invention is broadly related to methods for sensitively detecting proximity changes in systems that utilize an interacting fluorophore and quencher. In such methods, a metal surface is used as the

quencher. The metal surface may be a particle or film, such as nanoparticles or a coating, resp. Such systems provide an increase in sensitivity over previously-described quenchers, offering a signal-to-noise ratio of up to several orders of magnitude. Examples of such systems in which proximity changes are usefully detected include conformational changes in biomols. resulting from their interaction with their binding partners or ligands. Such biomols. may be, for example, nucleic acids, proteins, peptides, polysaccharides, or other polymeric, naturally-occurring or synthetic mols. These include, by way of non-limiting example, mol. beacons, which detect particular polynucleotide sequences; antibody-antigen interactions, and conformational changes in proteins upon binding to a ligand or substrate. A hairpin loop ssDNA was covalently linked to gold nanoparticles and to different fluorophores and the construct was used in single mismatch detection.

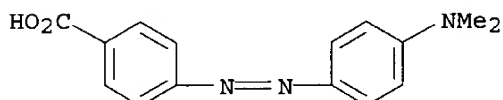
IT 6268-49-1, DABCYL

RL: MSC (Miscellaneous)

(metal surface substitution of; methods employing fluorescence quenching by metal surfaces)

RN 6268-49-1 CAPLUS

CN Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)



L5 ANSWER 17 OF 96 CAPLUS COPYRIGHT 2003 ACS

AN 2002:158033 CAPLUS

DN 136:195292

TI Use of added external control sequences to verify amplification of a target sequence in PCR

IN Heid, Christian; Livak, Kenneth J.

PA PE Corporation (NY), USA

SO PCT Int. Appl., 44 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002016648	A2	20020228	WO 2001-US26499	20010823
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	US 6358679	B1	20020319	US 2000-645959	20000824
	AU 2001085267	A5	20020304	AU 2001-85267	20010823
PRAI	US 2000-645959	A	20000824		
	WO 2001-US26499	W	20010823		

AB A method of verifying that PCR using a particular set of primers has been successful is described. The method uses a single-stranded control sequence that is distinct from the sequence of interest but that is amplified by the same set of primers as the control sequence. Probes with detectable labels and sequences specific for target and external control

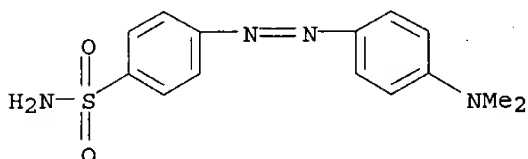
polynucleotides allow for detection and measurement. The amplification products are detected by nucleic acid hybridization using probes labeled with FRET pairs of dyes. The primers and the probe hybridize adjacent or substantially adjacent to one another on the sequences. A kit of PCR reagents can be dispensed into vessels for rapid and accurate nucleic acid amplification assay, with real-time or end-point measurements. The amplification control reagents, kits, and methods of the present invention provide pos. and neg. control tests which can be conducted concurrently with target amplification. Allelic differences at genetic loci can be detected, including single nucleotide polymorphisms (SNP).

IT 2435-64-5 39138-45-9

RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(as **quencher** in FRET dye-labeled hybridization probes; use of added external control sequences to verify amplification of target sequence in PCR)

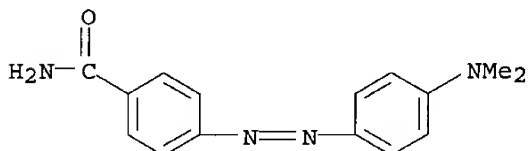
RN 2435-64-5 CAPLUS

CN Benzenesulfonamide, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)



RN 39138-45-9 CAPLUS

CN Benzamide, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)



L5 ANSWER 18 OF 96 CAPLUS COPYRIGHT 2003 ACS

AN 2002:114750 CAPLUS

DN 137:42235

TI A new class of homogeneous nucleic acid probes based on specific displacement hybridization

AU Luan, Guoyan; Guo, Qiuping; Liang, Jixuan

CS The Key Laboratory of Cell Biology and Tumor Cell Engineering of the Ministry of Education and 'Cancer Research Center, School of Life Sciences, Xiamen University, Fujian, 361005, Peop. Rep. China

SO Nucleic Acids Research (2002), 30(2), e5/1-e5/9

CODEN: NARHAD; ISSN: 0305-1048

PB Oxford University Press

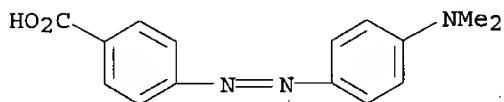
DT Journal

LA English

AB The authors have developed a new class of probes for homogeneous nucleic acid detection based on the proposed displacement hybridization. Our probes consist of two complementary oligodeoxyribonucleotides of different length labeled with a fluorophore and a **quencher** in close proximity in the duplex. The probes on their own are quenched, but they become fluorescent upon displacement hybridization with the target. These probes display complete discrimination between a perfectly matched target

and single nucleotide mismatch targets. A comparison of double-stranded probes with corresponding linear probes confirms that the presence of the complementary strand significantly enhances their specificity. Using four such probes labeled with different color fluorophores, each designed to recognize a different target, the authors have demonstrated that multiple targets can be distinguished in the same soln., even if they differ from one another by as little as a single nucleotide. Double-stranded probes were used in real-time nucleic acid amplifications as either probes or as primers. In addn. to its extreme specificity and flexibility, the new class of probes is simple to design and synthesize, has low cost and high sensitivity and is accessible to a wide range of labels. This class of probes should find applications in a variety of areas wherever high specificity of nucleic acid hybridization is relevant.

IT 6268-49-1D, Dabcyl, double-stranded oligonucleotide probes labeled with
 RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
 (fluorescent-labeled double-stranded oligonucleotide probes for detection of homogeneous nucleic acid detection based on displacement hybridization)
 RN 6268-49-1 CAPLUS
 CN Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)

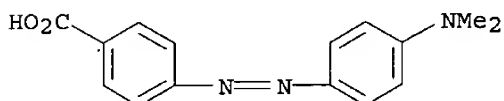


RE.CNT 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 19 OF 96 CAPLUS COPYRIGHT 2003 ACS
 AN 2002:111746 CAPLUS
 DN 137:196136
 TI Hybridization dynamics and kinetics of FRET-enhanced molecular beacons
 AU Tsourkas, Andrew; Xu, Jason; Bao, Gang
 CS Department of Biomedical Engineering, Georgia Institute of Technology and Emory University, Atlanta, GA, USA
 SO BED (American Society of Mechanical Engineers) (2001), 51(2001 Advances in Bioengineering), 327-328
 CODEN: ASMBEP; ISSN: 1521-4613
 PB American Society of Mechanical Engineers
 DT Journal
 LA English
 AB Dual fluorescence resonance energy transfer (FRET)-enhanced mol. beacons have been developed, one with a donor, the other with an acceptor mol. Through the detection of fluorescence due to FRET, it is possible to distinguish between mol. beacons (MB) that are bound to a target from those that are degraded by nucleases. MBs were synthesized from oligonucleotides that have been modified at one end with a **quencher** group (dabcyl) and at the other end with a fluorophore. Detecting low copy no. genes in real-time in living cells requires that probes bound to a target mRNA be distinguishable from probes that are either unbound or degraded by DNases. This is possible by binding simultaneously two MBs with overlapping excitation-emission curves to adjacent sites on the same target mRNA. The MB methodol., as a new and novel approach to real-time detection of gene expression in living cells, has the potential to considerably impact on basic and clinic studies of human health and diseases. A series of studies of the hybridization kinetics of the MBs and the targets is conducted to further developed the

09567863

new methodol.
IT 6268-49-1D, DABCYL, reaction product with oligonucleotide and
FAM-6 or Cy-3
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP
(Physical process); PROC (Process)
(hybridization dynamics and kinetics of FRET-enhanced mol. beacons)
RN 6268-49-1 CAPLUS
CN Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)



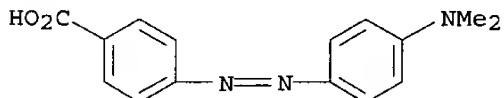
RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 20 OF 96 CAPLUS COPYRIGHT 2003 ACS
AN 2002:84750 CAPLUS
DN 136:98414
TI Fluorometric assay of potyvirus NIa protease
IN Song, Byeong Doo
PA S. Korea
SO Repub. Korean Kongkae Taeho Kongbo, No pp. given
CODEN: KRXXA7
DT Patent
LA Korean
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	KR 2000026009	A	20000506	KR 1998-43360	19981016
PRAI	KR 1998-43360		19981016		

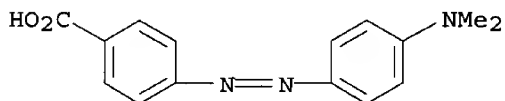
AB A fluorometric assay of a potyvirus NIa protease and substrates thereof are provided which can measure the activity of the NIa protease simply only by measuring an amt. of fluorescence generated by reaction and select the inhibitor of the NIa protease easily. The method comprises (a) a specific amino acid sequence truncated by a potyvirus NIa protease, (b) combining with a fluorophore selected from the groups consisting of tryptophan at a C-terminal and 5-(2-aminoethylamino)-1-naphthalenesulfonyl [5-(2-aminoethylamino)-1-naphthalenesulfonyl, EDANSyl], (c) reacting with oligopeptides combined with a **quencher** selected from the groups consisting of at 5-dimethyl amino naphthalene-1-sulfonyl (5-dimethyl amino naphthalene-1-sulfonyl, DNASyl) and 4-(4-dimethyl amino phenylazo)benzoyl [4-(4-dimethyl amino phenylazo)benzoyl; Dabcy] at a N-terminal with the NIa protease, (d) measuring an increased amt. of fluorescence generated from isolated tryptophan groups.

IT 6268-49-1
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(**quencher**; fluorometric assay of potyvirus NIa protease)
RN 6268-49-1 CAPLUS
CN Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)



09567863

L5 ANSWER 21 OF 96 CAPLUS COPYRIGHT 2003 ACS
AN 2002:62612 CAPLUS
DN 137:135607
TI Comparison of real-time, quantitative PCR with molecular beacons to nested PCR and culture methods for detection of Mycobacterium avium subsp. paratuberculosis in bovine fecal samples
AU Fang, Ying; Wu, Wai-Hong; Pepper, Jessica L.; Larsen, Jill L.; Marras, Salvatore A. E.; Nelson, Eric. A.; Epperson, William B.; Christopher-Hennings, Jane
CS Animal Disease Research and Diagnostic Laboratory, South Dakota State University, Brookings, SD, 57007, USA
SO Journal of Clinical Microbiology (2002), 40(1), 287-291
CODEN: JCMIDW; ISSN: 0095-1137
PB American Society for Microbiology
DT Journal
LA English
AB An automated PCR with fluorescent probes (mol. beacons) detected Mycobacterium avium subsp. paratuberculosis in bovine feces. When the PCR was compared with culture in testing 41 fecal samples, kappa scores of 0.94 to 0.96, a sensitivity of 93 to 96%, and a specificity of 92% were obtained. Results were quantitated by using a std. curve derived from a plasmid contg. IS900. A min. quantity of 1.7 .times. 10⁻⁴ pg of DNA, correlating to 1 to 8 CFU, was detected.
IT 6268-49-1D, Dabcyl, mol. beacon probe conjugates
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses) (quencher; comparison of real-time, quant. mol. beacons PCR to nested PCR and culture methods for detection of M. avium subsp. paratuberculosis in bovine fecal samples)
RN 6268-49-1 CAPLUS
CN Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)



RE.CNT 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 22 OF 96 CAPLUS COPYRIGHT 2003 ACS
AN 2002:50355 CAPLUS
DN 137:120185
TI HLA-DRB fluorotyping by dark quenching and automated analysis
AU Slateva, K.; Elsner, H.-A.; Albis-Camps, M.; Blasczyk, R.
CS Department of Transfusion Medicine, Hannover Medical School, Hannover, D-30625, Germany
SO Tissue Antigens (2001), 58(4), 250-254
CODEN: TSANA2; ISSN: 0001-2815
PB Munksgaard International Publishers Ltd.
DT Journal
LA English
AB In fluorescence-based sequence-specific primed polymerase chain reaction (PCR), referred to as fluorotyping for HLA typing, a major problem is the overlap of the emission spectra of the single dyes. In order to increase the robustness of the previously described HLA-DRB1,3,4,5 low-resoln. fluorotyping method, we have constructed two probes quenched by the non-fluorescent acceptor dye DABCYL. The HLA-DRB-specific probe was labeled with FAM, and the internal control probe with TAMRA, resp., as reporter fluorescent dyes. TAMRA was replaced by DABCYL as a

quencher, which led to increased robustness and better discrimination between neg. and pos. amplification results. ROX was used as a ref. to normalize the fluorescence of the reporter dyes. Moreover, as FAM and TAMRA differ strongly by their emission maxima, HLA-DRB-specific and internal control amplification could be clearly distinguished. To further automate data anal., the software of the TaqMan system 7700 was supplemented by an EXCEL-based calcn. table, which directly took over the data. Using modified fluorotyping chem. and automated data anal., a total of 201 DNA samples was typed correctly. In summary, HLA-DRB fluorotyping by dark quenching and automated anal. proved to be a robust and reliable tool for research and routine purposes.

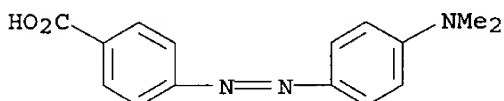
IT 6268-49-1, DABCYL

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(HLA-DRB fluorotyping by dark quenching and automated anal.)

RN 6268-49-1 CAPLUS

CN Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)



RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 23 OF 96 CAPLUS COPYRIGHT 2003 ACS

AN 2002:10198 CAPLUS

DN 136:98789

TI Nucleic acid enzyme biosensor for ions

IN Lu, Yi; Li, Jing

PA Board of Trustees of the University of Illinois, USA

SO PCT Int. Appl., 57 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002000006	A2	20020103	WO 2001-US20557	20010627
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MO, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 2001076843	A5	20020108	AU 2001-76843	20010627
PRAI US 2000-605558	A	20000627		
WO 2001-US20557	W	20010627		

AB Disclosed are compns. and methods for the sensitive and selective detection of ions, particularly metal ions such as Pb²⁺, using nucleic acid enzymes (ribozymes and deoxyribozymes). The biosensors use nucleic acid enzymes that require the presence of specific ions for their activity. Enzymic activity leads to hydrolytic cleavage of a substrate nucleic acid that may be part of the nucleic acid enzyme itself. The resulting cleavage product then may be detected indicating the presence of the ion. In a preferred embodiment, the biosensor comprises a fluorophore

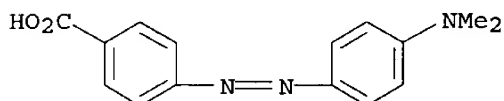
and a **quencher** arranged in proximity such that prior to cleavage the fluorescence intensity is decreased by the **quencher**. Upon cleavage, the fluorophore and **quencher** are sepd. leading to an increase in fluorescence intensity. The biosensor contains an array of nucleic acid enzymes having a range of sensitivities and specificities to several different ions.

IT 6268-49-1

RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(fluorophore; nucleic acid enzyme biosensor for ions)

RN 6268-49-1 CAPLUS

CN Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)



L5 ANSWER 24 OF 96 CAPLUS COPYRIGHT 2003 ACS

AN 2001:868732 CAPLUS

DN 136:1590

TI A method of selectively labeling amplified nucleic acids using primers containing base analogs

IN Marshall, David J.; Prudent, James R.; Scherrill, Christopher B.; Shapiro, Gideon; Grenier, Jennifer K.; Richmond, Craig S.; Jurczk, Simona

PA USA

SO PCT Int. Appl., 124 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001090417	A2	20011129	WO 2001-US16359	20010518
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
PRAI	US 2000-205712P	P	20000519		
	US 2000-240398P	P	20001014		
	US 2001-282831P	P	20010410		

AB Assays using non-natural bases are described. A method of detecting nucleic acid amplification products that makes use of the unusual base-pairing properties of certain base analogs is described. In one embodiment, primers contg. these bases are used for PCR. The PCR product will have a single-stranded domain including the base analog. The amplification products are then hybridized with a probe for the single-stranded region that includes a binding partner for the base analog and a reporter moiety. Hybridization can be assayed by selective release of the reporter group from the hybrid. The invention also provides corresponding kits for use in detecting target nucleic acids in a sample. Alternatively, the reporter can be incorporated into the amplification product rather than annealing and then cleaving.

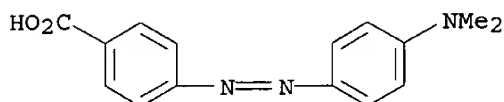
IT 6268-49-1

09567863

RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(as **quencher** moiety in probes; method of selectively labeling
amplified nucleic acids using primers contg. base analogs)

RN 6268-49-1 CAPLUS

CN	Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)
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IT 316121-62-7

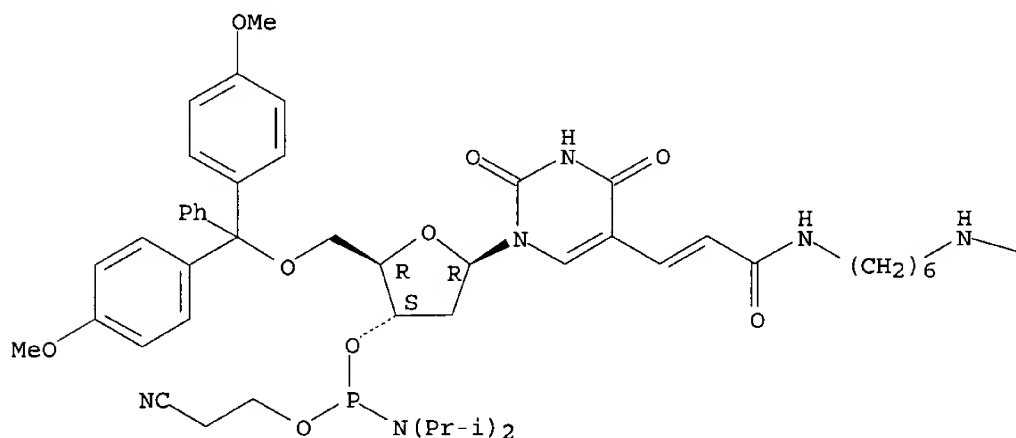
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(as reporter moiety in probes; method of selectively labeling amplified
nucleic acids using primers contg. base analogs)

RN 316121-62-7 CAPLUS

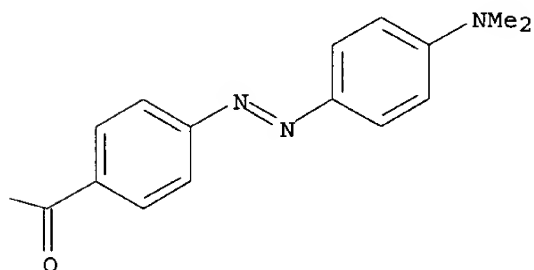
Uridine, 5'-[bis(4-methoxyphenyl)phenylmethyl]-2'-deoxy-5-[3-[[6-[[4-[[4-(dimethylamino)phenyl]azo]benzoyl]amino]hexyl]amino]-3-oxo-1-propenyl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A



PAGE 1-B



09567863

IT 376631-71-9P

RL: ARU (Analytical role, unclassified); RCT (Reactant); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); RACT (Reactant or reagent)

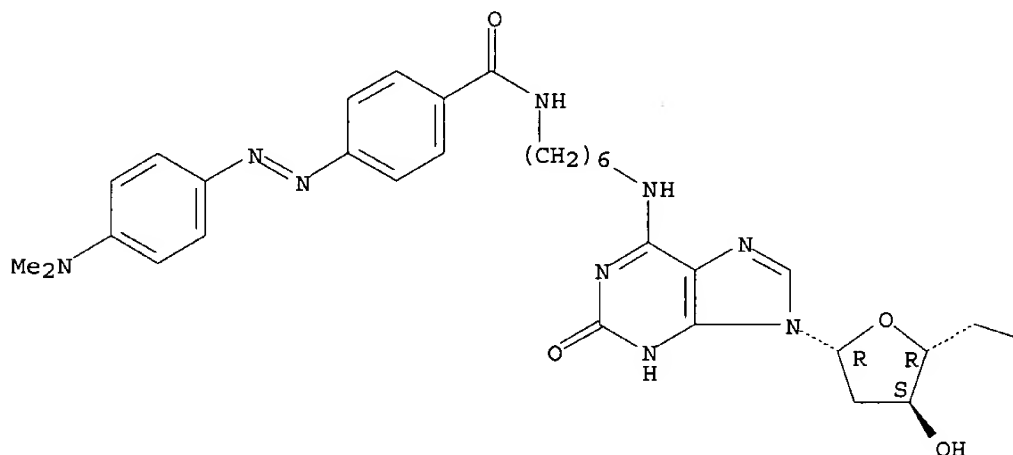
(synthesis and reactions of; method of selectively labeling amplified nucleic acids using primers contg. base analogs)

RN 376631-71-9 CAPLUS

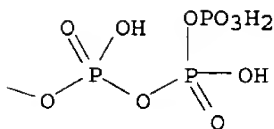
CN Adenosine 5'-(tetrahydrogen triphosphate), 2'-deoxy-N-[6-[[4-[[4-(dimethylamino)phenyl]azo]benzoyl]amino]hexyl]-1,2-dihydro-2-oxo- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A



PAGE 1-B



L5 ANSWER 25 OF 96 CAPLUS COPYRIGHT 2003 ACS

AN 2001:833569 CAPLUS

DN 135:368945

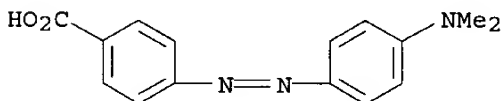
TI Synthesis and methods for dark **quencher** probes for donor-acceptor energy transfer

IN Cook, Ronald M.; Lyttle, Matt; Dick, Daren

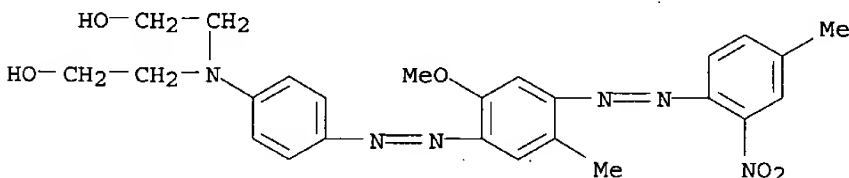
09567863

PA Biosearch Technologies, Inc., USA
 SO PCT Int. Appl., 95 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

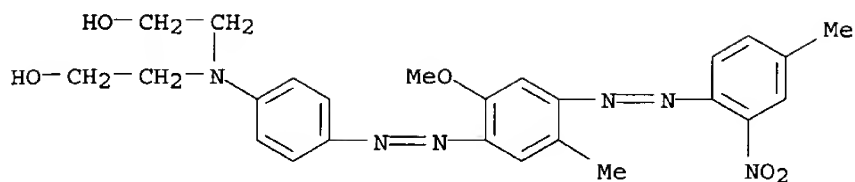
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001086001	A1	20011115	WO 2001-US15082	20010508
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
PRAI	US 2000-567863	A	20000509		
OS	MARPAT 135:368945				
AB	The invention concerns a family of quenchers of excited state energy that are substantially non-fluorescent, termed "Black Hole Quenchers" (BHQs). The quenchers of the invention remedy many of the deficiencies of currently utilized dark quenchers, probes assembled using these quenchers and methods using such quenchers and probes. Further, the dark quenchers are functionalized to allow their rapid attachment to probe that can be engineered to have a desired light absorption profile. The provision of this class of dark quenchers represents a substantial improvement in the design of probes incorporating dark quenchers and methods using such probes. Also provided are methods of using the BHQs, synthesis of such probes incorporating the BHQs and methods of using the probes.				
IT	6268-49-1DP, conjugates with nucleotides 374591-92-1DP, conjugates with nucleotides 374591-95-4P 374591-96-5DP, conjugates with nucleotides 374591-99-8P 374592-00-4DP, conjugates with nucleotides 374592-03-7P RL: ARG (Analytical reagent use); PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); PROC (Process); USES (Uses) (Synthesis and methods for dark quencher probes for donor-acceptor energy transfer)				
RN	6268-49-1 CAPLUS				
CN	Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)				



RN 374591-92-1 CAPLUS
 CN Ethanol, 2,2'-[[4-[[2-methoxy-5-methyl-4-[(4-methyl-2-nitrophenyl)azo]phenyl]azo]phenyl]imino]bis- (9CI) (CA INDEX NAME)



09567863

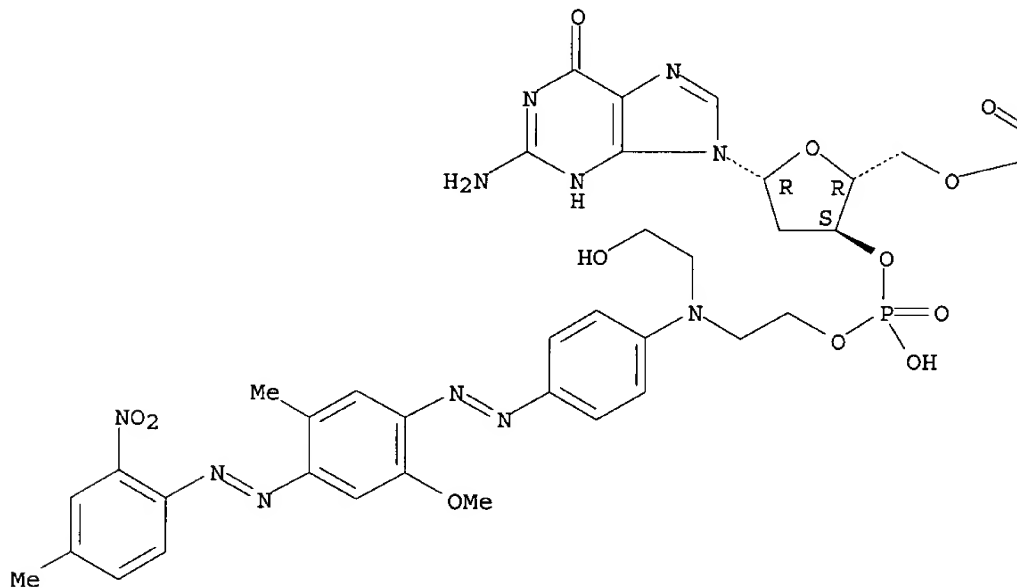


RN 374591-95-4 CAPLUS

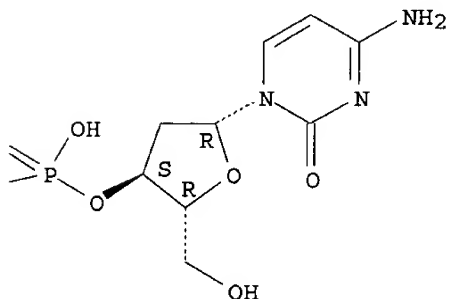
CN 3'-Guanylic acid, 2'-deoxycytidylyl-(3'.fwdarw.5')-2'-deoxy-,
3'-[2-[(2-hydroxyethyl)[4-[[2-methoxy-5-methyl-4-[(4-methyl-2-nitrophenyl)azo]phenyl]azo]phenyl]amino]ethyl] ester (9CI) (CA INDEX
NAME)

Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A



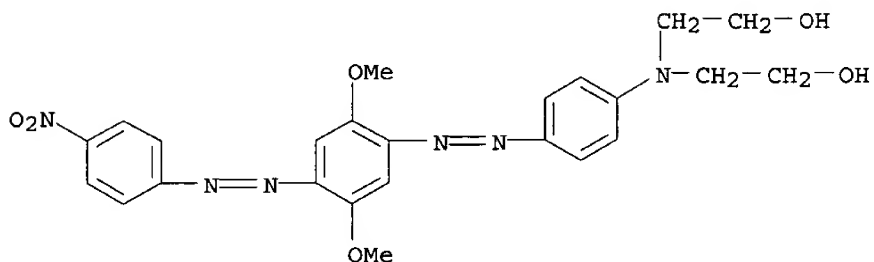
PAGE 1-B



09567863

RN 374591-96-5 CAPLUS

CN Ethanol, 2,2'-[[4-[[2,5-dimethoxy-4-[(4-nitrophenyl)azo]phenyl]azo]phenyl]imino]bis- (9CI) (CA INDEX NAME)

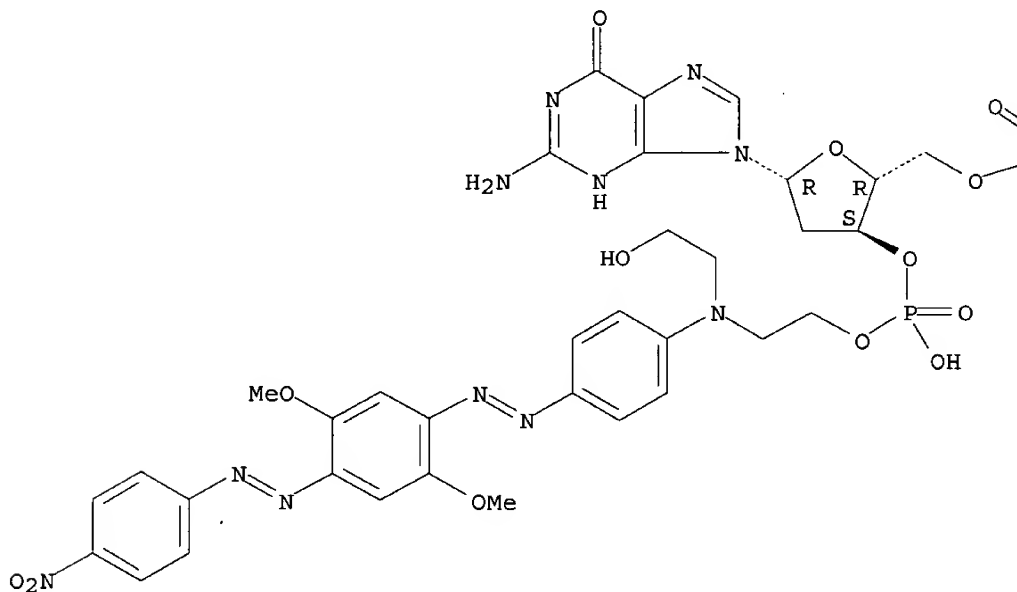


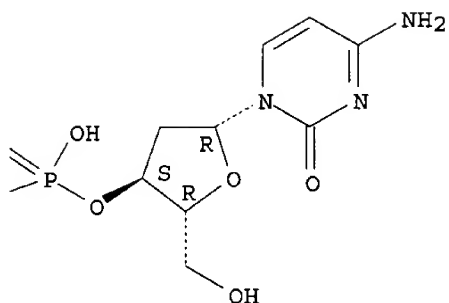
RN 374591-99-8 CAPLUS

CN 3'-Guanylic acid, 2'-deoxycytidylyl-(3'.fwdarw.5')-2'-deoxy-, 3'-[2-[[4-[[2,5-dimethoxy-4-[(4-nitrophenyl)azo]phenyl]azo]phenyl](2-hydroxyethyl)amino]ethyl] ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

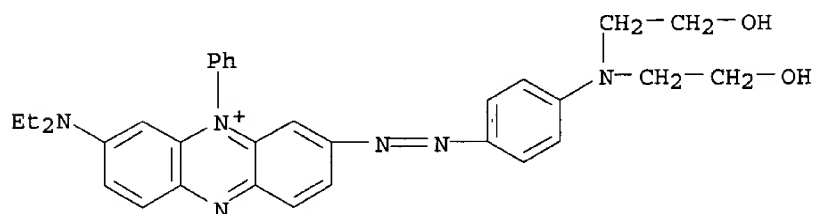
PAGE 1-A





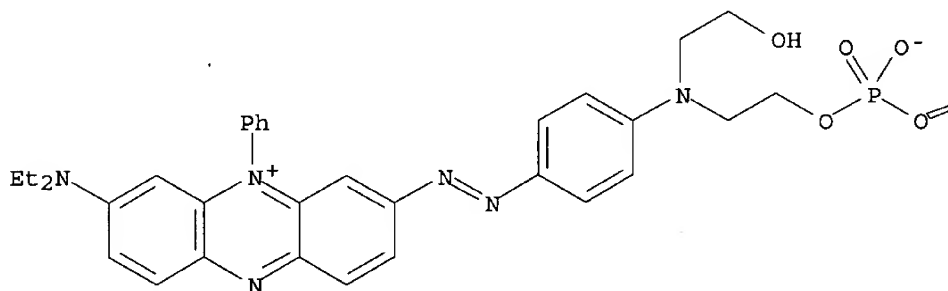
RN 374592-00-4 CAPLUS

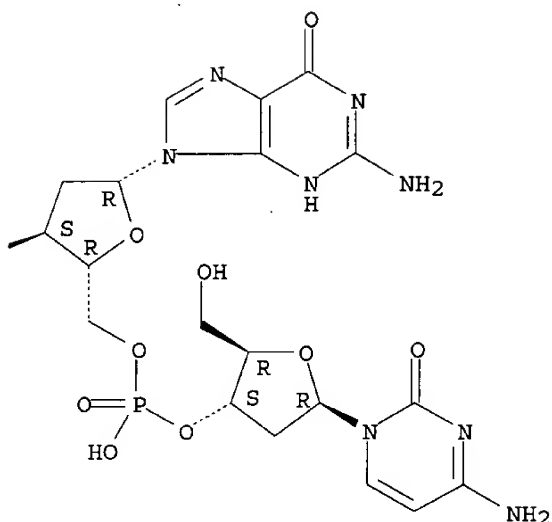
CN Phenazinium, 3-[[4-[bis(2-hydroxyethyl)amino]phenyl]azo]-7-(diethylamino)-5-phenyl-, chloride (9CI) (CA INDEX NAME)

● Cl⁻

RN 374592-03-7 CAPLUS

CN 3'-Guanylic acid, 2'-deoxycytidylyl-(3'.fwdarw.5')-2'-deoxy-, 3'-[2-[[4-[[8-(diethylamino)-10-phenylphenazinium-2-yl]azo]phenyl](2-hydroxyethyl)amino]ethyl] ester, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

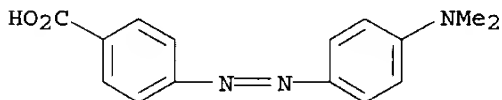


IT 6268-49-1

RL: PRP (Properties); RCT (Reactant); RACT (Reactant or reagent)
 (Synthesis and methods for dark **quencher** probes for
 donor-acceptor energy transfer)

RN 6268-49-1 CAPLUS

CN Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)



IT 374591-92-1P 374591-93-2P 374591-94-3P

374591-96-5P 374591-97-6P 374591-98-7P

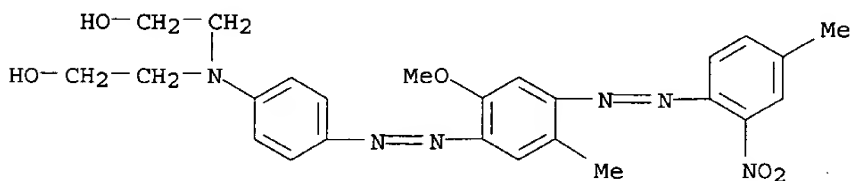
374592-00-4P 374592-01-5P 374592-02-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)

(Synthesis and methods for dark **quencher** probes for
 donor-acceptor energy transfer)

RN 374591-92-1 CAPLUS

CN Ethanol, 2,2'-[[4-[[2-methoxy-5-methyl-4-[(4-methyl-2-
 nitrophenyl)azo]phenyl]azo]phenyl]imino]bis- (9CI) (CA INDEX NAME)



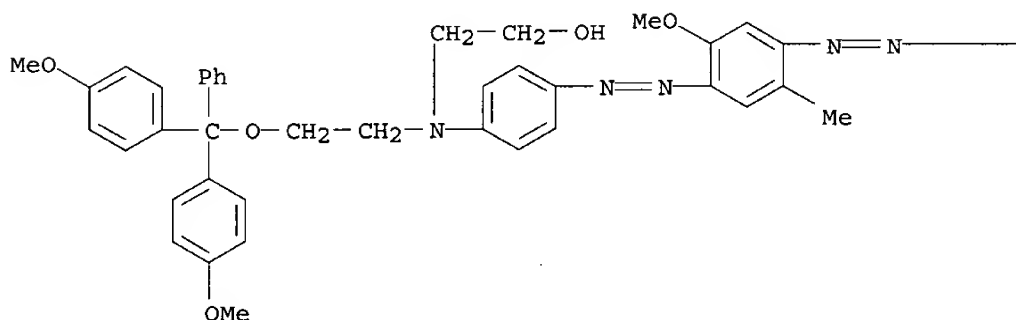
RN 374591-93-2 CAPLUS

CN Ethanol, 2-[[2-[bis(4-methoxyphenyl)phenylmethoxy]ethyl][4-[[2-methoxy-5-

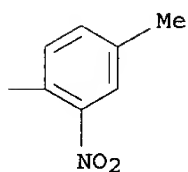
09567863

methyl-4-[(4-methyl-2-nitrophenyl)azo]phenyl]azo]phenyl]amino] - (9CI) (CA INDEX NAME)

PAGE 1-A

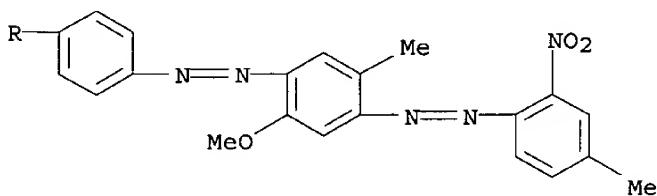
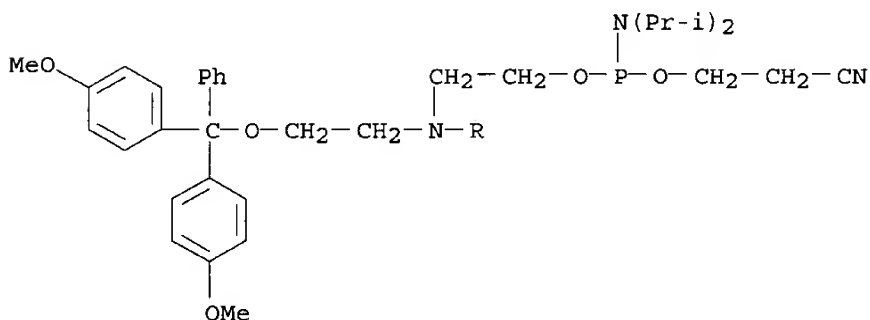


PAGE 1-B



RN 374591-94-3 CAPLUS

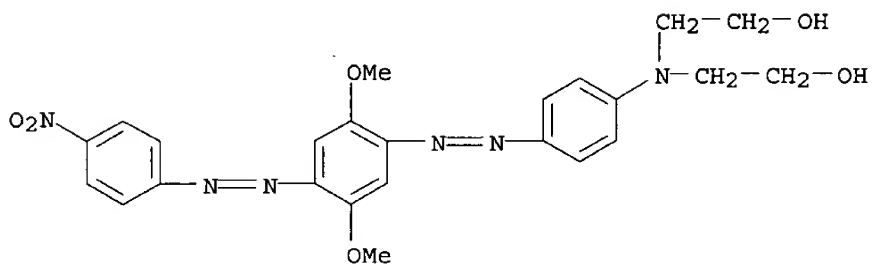
CN Phosphoramidous acid, bis(1-methylethyl)-, 2-[[2-[bis(4-methoxyphenyl)phenylmethoxy]ethyl] [4-[[2-methoxy-5-methyl-4-[(4-methyl-2-nitrophenyl)azo]phenyl]azo]phenyl]amino]ethyl 2-cyanoethyl ester (9CI)
(CA INDEX NAME)



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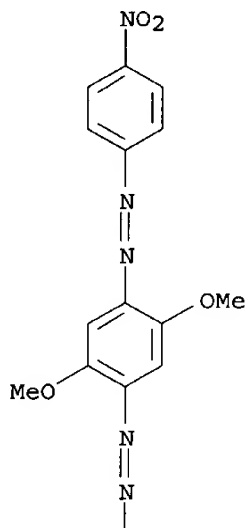
RN 374591-96-5 CAPLUS

CN Ethanol, 2,2'-[[4-[[2,5-dimethoxy-4-[(4-nitrophenyl)azo]phenyl]azo]phenyl]imino]bis- (9CI) (CA INDEX NAME)

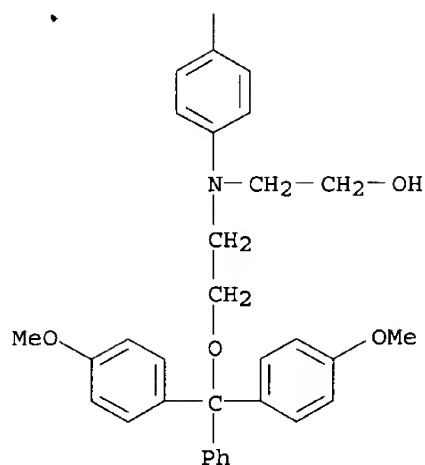


RN 374591-97-6 CAPLUS

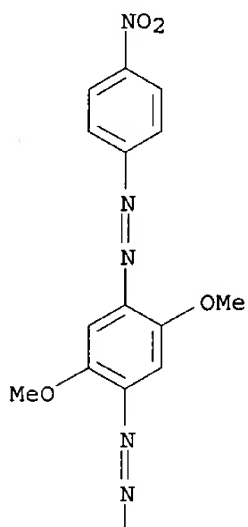
CN Ethanol, 2-[[2-[bis(4-methoxyphenyl)phenylmethoxy]ethyl][4-[[2,5-dimethoxy-4-[(4-nitrophenyl)azo]phenyl]azo]phenyl]amino]- (9CI) (CA INDEX NAME)

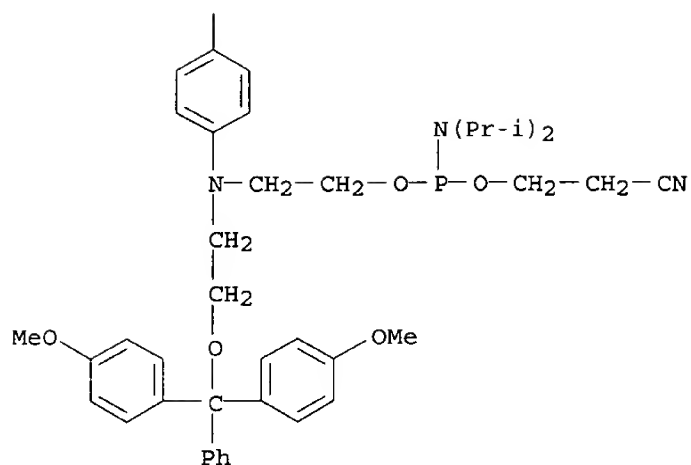


PAGE 1-A



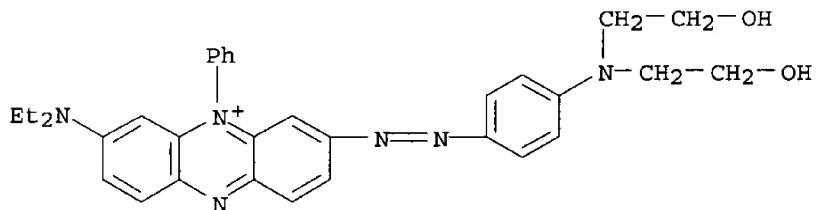
RN 374591-98-7 CAPLUS
 CN Phosphoramidous acid, bis(1-methylethyl)-, 2-[[2-[bis(4-methoxyphenyl)phenylmethoxy]ethyl][4-[[2,5-dimethoxy-4-[(4-nitrophenyl)azo]phenyl]azo]phenyl]amino]ethyl 2-cyanoethyl ester (9CI)
 (CA INDEX NAME)





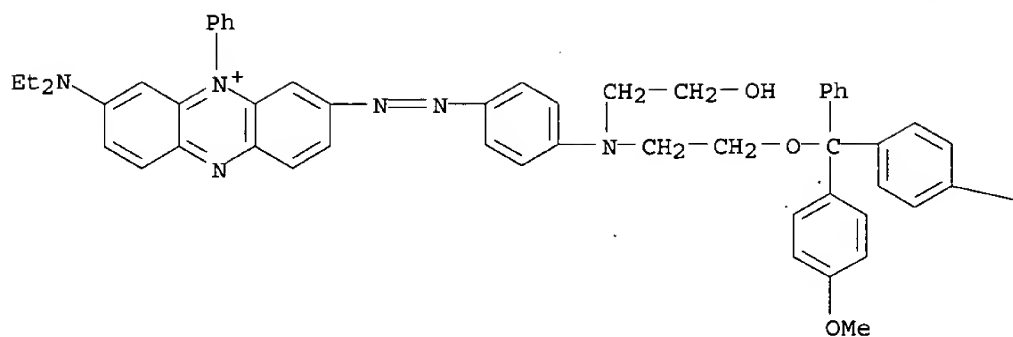
RN 374592-00-4 CAPLUS

CN Phenazinium, 3-[[4-[bis(2-hydroxyethyl)amino]phenyl]azo]-7-(diethylamino)-5-phenyl-, chloride (9CI) (CA INDEX NAME)

● Cl⁻

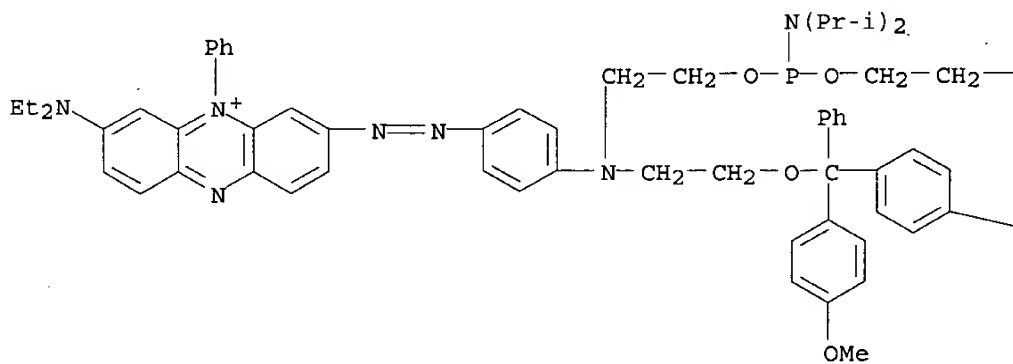
RN 374592-01-5 CAPLUS

CN Phenazinium, 3-[[4-[2-[bis(4-methoxyphenyl)phenylmethoxy]ethyl](2-hydroxyethyl)amino]phenyl]azo]-7-(diethylamino)-5-phenyl-, chloride (9CI) (CA INDEX NAME)

● Cl⁻

— OMe

RN 374592-02-6 CAPLUS
 CN Phenazinium, 3-[[4-[[2-[bis(4-methoxyphenyl)phenylmethoxy]ethyl][2-[[[bis(1-methylethyl)amino](2-cyanoethoxy)phosphino]oxy]ethyl]amino]phenyl]azo]-7-(diethylamino)-5-phenyl-, chloride (9CI) (CA INDEX NAME)

● Cl⁻

09567863

PAGE 1-B

— CN

— OMe

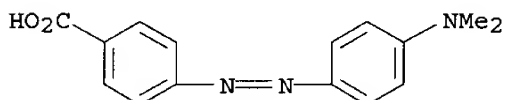
RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

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09567863

=> d 15 bib abs hitstr 26-65

L5 ANSWER 26 OF 96 CAPLUS COPYRIGHT 2003 ACS
AN 2001:787927 CAPLUS
DN 136:382361
TI Molecular recognition technology for detection of protein target by
molecular beacon
AU Xu, Shunqing; Cai, Xiaokun; Tan, Xianglin; Lu, Bin
CS National Laboratory of Biomedical Photonics, Institute of Environmental
Medicine, Tongji Medical College, Huazhong University of Science and
Technology, Wuhan, 430030, Peop. Rep. China
SO Proceedings of SPIE-The International Society for Optical Engineering
(2001), 4414 (International Conference on Sensor Technology (ISTC 2001),
2001), 123-125
CODEN: PSISDG; ISSN: 0277-786X
PB SPIE-The International Society for Optical Engineering
DT Journal
LA English
AB Until recently, mol. beacons were limited to detecting nucleic acid
target. Here we present a new technol. for detection of thrombin protein
by aptamer-derived mol. beacon without any antibody. An aptamer
anti-thrombin was used as a recognition mol. To make aptamer mol. beacon,
we constructed two DNA oligomers that are derived from the aptamer to
thrombin. To 1 of the DNA oligomers that forms a hairpin structure, the
fluorophore and **quencher** were attached at the 5' and 3'
ends, resp. Specially in the presence of Tat or its peptides, but not in
the presence of other proteins, the two ligomers undergo a
conformational change to form a duplex that leads to relieving of
fluorophore from the **quencher**, and thus a significant
enhancement of the fluorescence of fluorescein was obsd. A novel strategy
for exploiting aptamers in the anal. of thrombin has been described. A
similar strategy could be used to study other analytes such as proteins
and small mols.
IT 6268-49-1, DABCYL
RL: RCT (Reactant); RACT (Reactant or reagent)
(mol. recognition technol. for detection of protein target by mol.
beacon)
RN 6268-49-1 CAPLUS
CN Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)



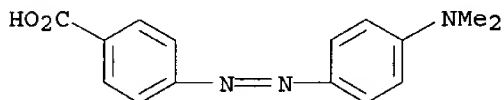
RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 27 OF 96 CAPLUS COPYRIGHT 2003 ACS
AN 2001:713620 CAPLUS
DN 135:268135
TI Methods of using semiconductor nanocrystals (quantum dots) as reporters in
bead-based multiplex nucleic acid hybridizations
IN Bruchez, Marcel P., Jr.; Lai, Jennifer H.; Phillips, Vince E.; Watson,
Andrew R.; Wong, Edith Y.
PA Quantum Dot Corporation, USA
SO PCT Int. Appl., 91 pp.
CODEN: PIXXD2
DT Patent
LA English

09567863

FAN.CNT 2

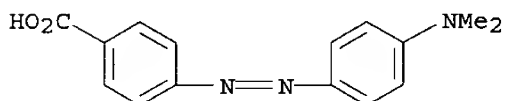
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001071044	A1	20010927	WO 2001-US9351	20010322
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	US 2002034747	A1	20020321	US 2001-815585	20010322
	US 6500622	B2	20021231		
	US 2002039732	A1	20020404	US 2001-815510	20010322
PRAI	US 2000-191227P	P	20000322		
	US 2000-237000P	P	20000929		
AB	Methods, compns. and articles of manuf. for assaying a sample for a target polynucleotide and/or an amplification product therefrom are provided. The methods comprise contacting a sample suspected of contg. the target polynucleotide with a polynucleotide that can bind specifically thereto; this polynucleotide is conjugated to a substrate, preferably an encoded bead conjugate. The beads are encoded with quantum dots. An amplification reaction can first be used to produce the amplification product from the target polynucleotide so that it can be used to indirectly assay for the target polynucleotide. An amplification product detection complex and method of forming the same are also provided. The methods are particularly useful in multiplex settings where a plurality of targets are present. Amplification product assay complexes and amplification product assay arrays are also provided, along with methods of forming the same. Kits comprising reagents for performing such methods are also provided.				
IT	6268-49-1D, oligonucleotide conjugates RL: ARU (Analytical role, unclassified); ANST (Analytical study) (as quencher dye; methods of using quantum dots as coded reporters in bead-based multiplex nucleic acid hybridizations)				
RN	6268-49-1 CAPLUS				
CN	Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)				



RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 28 OF 96 CAPLUS COPYRIGHT 2003 ACS
 AN 2001:614286 CAPLUS
 DN 135:191246
 TI Determination of the genotype at the ornithine decarboxylase gene to assess susceptibility of an individual to carcinogenesis
 IN O'Brien, Thomas G.; Guo, Yong Jun
 PA Lankenau Medical Research Center, USA
 SO U.S., 15 pp.
 CODEN: USXXAM
 DT Patent
 LA English
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6277581	B1	20010821	US 2000-516357	20000301
	US 2002081611	A1	20020627	US 2001-911935	20010724
PRAI	US 1999-122309P	P	19990301		
	US 2000-516357	A2	20000301		
AB	The invention includes kits and methods for assessing the susceptibility of a mammal such as a human for carcinogenesis. The methods comprise detg. whether the mammal comprises a certain allele of the mammal's ODC (ornithine decarboxylase) gene. The methods include use of a probe which binds specifically with a portion of one allele of the ODC gene and which comprises a fluorescent label and a fluorescence quencher . The methods also include use of such a probe and a polymerase enzyme for amplifying a portion of the ODC gene, the polymerase having exonuclease activity whereby the probe can be nucleolytically degraded. There are two major alleles of the human ODC gene (the A- and G-alleles) and homozygosity for the A-allele indicates an increased susceptibility to carcinogenesis, esp. in the epithelium.				
IT	6268-49-1D , conjugates with hybridization probes RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses) (DabcyI; detn. of genotype at ornithine decarboxylase gene to assess susceptibility of individual to carcinogenesis)				
RN	6268-49-1 CAPLUS				
CN	Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)				



RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 29 OF 96 CAPLUS COPYRIGHT 2003 ACS
 AN 2001:592662 CAPLUS
 DN 136:227417
 TI Use of dark-quenched FRET probes in real-time PCR
 AU Chou, Quin; Gregory, Sara; Mandyam, Rangu; Brotski, Chris; Cabradilla, Cy.
 CS BioSource International, Inc., Camarillo, CA, 93012, USA
 SO American Biotechnology Laboratory (2001), 19(8), 34
 CODEN: ABLAEY; ISSN: 0749-3223
 PB International Scientific Communications, Inc.
 DT Journal
 LA English
 AB FRET (fluorescence resonance energy transfer) probes are random-coiled oligonucleotides contg. a reporter at the 5' end and a **quencher** at the 3' end. Quenching of the FRET probe is achieved by spectral overlap. The use of Black Hole **Quencher** (BHQ)-labeled FRET probes in real-time polymerase chain reaction (PCR) was evaluated. For S/N measurement, each FRET probe was formulated with a 5' a reporter (FAM) and a 3' **quencher** (TAMRA, DABCYL, BHQ 1, or BHQ 2). FRET probes were digested with DNase at room temp. for 1 h, and the fluorescence intensities were measured using the LS-50B PCR detection system. The 5'-FAM FRET probe with BHQ 1 at the 3'-end gave the best S/N among the different quenchers evaluated, and TAMRA was the least effective **quencher**. BHQ-labeled FRET probes could reliably detect target as low as 100 copies, and provide higher sensitivity than TAMRA-labeled probes. They also worked well even under suboptimal PCR conditions.
 IT 374591-92-1, Black Hole **Quencher** 1 374591-96-5

09567863

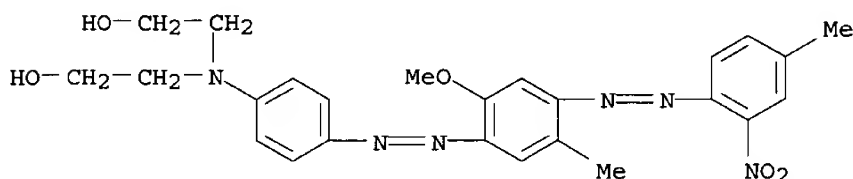
, BHQ 2

RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)

(fluorescent label; use of dark-quenched FRET probes in real-time PCR)

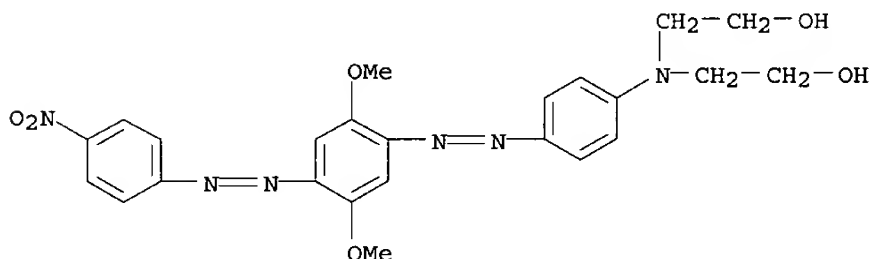
RN 374591-92-1 CAPLUS

CN Ethanol, 2,2'-[[4-[[2-methoxy-5-methyl-4-[(4-methyl-2-nitrophenyl)azo]phenyl]azo]phenyl]imino]bis- (9CI) (CA INDEX NAME)



RN 374591-96-5 CAPLUS

CN Ethanol, 2,2'-[[4-[[2,5-dimethoxy-4-[(4-nitrophenyl)azo]phenyl]azo]phenyl]imino]bis- (9CI) (CA INDEX NAME)



RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 30 OF 96 CAPLUS COPYRIGHT 2003 ACS

AN 2001:533022 CAPLUS

DN 136:161900

TI Exciton interaction in molecular beacons: a sensitive sensor for short range modifications of the nucleic acid structure

AU Bernacchi, Serena; Mely, Yves

CS Laboratoire de Pharmacologie et Physico-Chimie des Interactions Cellulaires et Moleculaires, UMR 7034 CNRS, Faculte de Pharmacie, Universite Louis Pasteur, Illkirch, 67401, Fr.

SO Nucleic Acids Research (2001), 29(13), e62/1-e62/8

CODEN: NARHAD; ISSN: 0305-1048

PB Oxford University Press

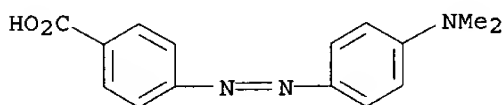
DT Journal

LA English

AB Mol. beacons are hairpin-shaped, single-stranded oligonucleotides constituting sensitive fluorescent DNA probes widely used to report the presence of specific nucleic acids. In its closed form the stem of the hairpin holds the fluorophore covalently attached to one end, close to the **quencher**, which is covalently attached to the other end. Here we report that in the closed form the fluorophore and the **quencher** form a ground state intramol. heterodimer whose spectral properties can be described by exciton theory. Formation of the heterodimers was found to be poorly sensitive to the stem sequence, the resp. positions of the dyes and the nature of the nucleic acid (DNA or RNA). The heterodimer allows

strong coupling between the transition dipoles of the two chromophores, leading to dramatic changes in the absorption spectrum that are not compatible with a Forster-type fluorescence resonance energy transfer (FRET) mechanism. The excitonic heterodimer and its assocd. absorption spectrum are extremely sensitive to the orientation of and distance between the dyes. Accordingly, the application of mol. beacons can be extended to monitoring short range modifications of the stem structure. Moreover, the excitonic interaction was also found to operate for doubly end-labeled duplexes.

IT 6268-49-1, DABCYL
 RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
 (exciton interaction in mol. beacons: a sensitive sensor for short range modifications of the nucleic acid structure)
 RN 6268-49-1 CAPLUS
 CN Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)



RE.CNT 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 31 OF 96 CAPLUS COPYRIGHT 2003 ACS
 AN 2001:519371 CAPLUS
 DN 135:117896
 TI Homogeneous detection of a target through nucleic acid ligand-ligand beacon interaction
 IN Jayasena, Sumedha; Gold, Larry
 PA Gilead Sciences, Inc., USA
 SO U.S., 42 pp., Cont.-in-part of U.S. 5,989,823.
 CODEN: USXXAM
 DT Patent
 LA English
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6261783	B1	20010717	US 2000-581326	20000811
	US 5989823	A	19991123	US 1998-157206	19980918
	WO 9931276	A1	19990624	WO 1998-US26599	19981215
	W:				
	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW:				
	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	US 6177555	B1	20010123	US 1999-447863	19991123
	US 2001055773	A1	20011227	US 2001-907074	20010717
PRAI	US 1997-68135P	P	19971215		
	US 1998-157206	A2	19980918		
	WO 1998-US26599	W	19981215		
	US 2000-581326	A1	20000811		
AB	A method for detecting a target mol. in a test mixt. suspected of contg. said target mol. is described. The nucleic acid ligand capable of binding to the target mol. has a first sequence A and a second sequence B, which are partially complementary sequences that form an imperfect intramol.				

duplex, which unwinds upon the binding of the target to the nucleic acid ligand. Sequences A and B are able to participate in extramol. hybridization reactions only when the duplex is unwound. Three different cascade nucleic acids contain a first sequence and a second sequence, which are partially complementary sequences. At least one sequence is exactly complementary to A or B. The second sequence may be complementary to A or B, or may be a third sequence C, or its complement. The test mixt. suspected of contg. the target mol. is contacted with the nucleic acid ligand, causing the duplex of the nucleic acid ligand to unwind such that sequences A and B become available for extramol. hybridization. This mixt. is contacted with the first, second, and third cascade nucleic acids so that the unpaired A and B sequences triggers a cascade of intermol. hybridization involving the cascade nucleic acids in which intermol. hybridization takes place between A and its complement, B and its complement, and between C its complement, leading to the formation of a multimol. hybridization complex. The presence of the multimol. hybridization complex is then detected. Detection of target mols. is based on nucleic acid ligand-ligand beacon probe hybridization, which changes the ligand beacon probe conformation, relieves intramol. fluorescence quenching of the beacon probe, and produces a fluorescence signal. The ligand beacon assay of this invention is illustrated by hybridization of synthetic probes with the target proteins Taq DNA polymerase, human platelet derived growth factor AB-dimer, human L-selectin and human P-selectin. DNA or RNA aptamer ligands for Taq DNA polymerase, PDGF and L-selectin and P-selectin were selected by a std. SELEX method. Ligand beacon probes derivatized with a 5'-fluorescein fluorophore and 3'-DABCYL **quencher**, resp., produced a quant. fluorescence signal when mixed with the aptamers and when added after aptamers and purified target proteins were mixed. This ligand beacon assay was also able to detect human platelet derived growth factor AB-dimer, L-selectin and P-selectin in blood plasma.

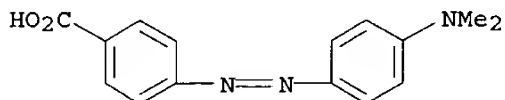
IT 6268-49-1

RL: ARU (Analytical role, unclassified); RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent)

(homogeneous detection of a target through nucleic acid ligand-ligand beacon interaction)

RN 6268-49-1 CAPLUS

CN Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)



RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 32 OF 96 CAPLUS COPYRIGHT 2003 ACS

AN 2001:497866 CAPLUS

DN 135:207050

TI Aptamer Beacons for the Direct Detection of Proteins

AU Hamaguchi, Nobuko; Ellington, Andrew; Stanton, Martin

CS Rosenstiel Basic Medical Sciences Research Center MS-029, Brandeis University, Waltham, MA, 02454, USA

SO Analytical Biochemistry (2001), 294(2), 126-131
CODEN: ANBCA2; ISSN: 0003-2697

PB Academic Press

DT Journal

LA English

AB The authors have designed a new class of mols., which the authors term

aptamer beacons, for detecting a wide range of ligands. Similar to mol. beacons, aptamer beacons can adopt 2 or more conformations, 1 of which allows ligand binding. A fluorescence-quenching pair is used to report changes in conformation induced by ligand binding. An anti-thrombin aptamer was engineered into an aptamer beacon by adding nucleotides to the 5'-end which are complementary to nucleotides at the 3'-end of the aptamer. In the absence of thrombin, the added nucleotides will form a duplex with the 3'-end, forcing the aptamer beacon into a stem-loop structure. In the presence of thrombin, the aptamer beacon forms the ligand-binding structure. This conformational change causes a change in the distance between a fluorophore attached to the 5'-end and a **quencher** attached to the 3'-end. Aptamer beacon can be a sensitive tool for detecting proteins and other chem. compds. (c) 2001 Academic Press.

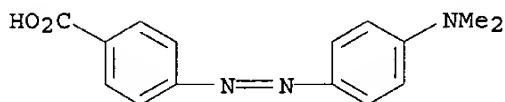
IT 6268-49-1

RL: RCT (Reactant); RACT (Reactant or reagent)

(DABCYL for aptamer beacon synthesis for direct thrombin detection)

RN 6268-49-1 CAPLUS

CN Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)



RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 33 OF 96 CAPLUS COPYRIGHT 2003 ACS

AN 2001:435306 CAPLUS

DN 135:41772

TI Fluorophore-oligonucleotide-4-(phenyldiazenyl)phenylamine **quencher**
conjugates for use in hybridization assays

IN Reed, Michael W.; Lukhtanov, Eugeny Alexander; Gall, Alexander A.; Dempcy, Robert O.

PA Epoch Biosciences, Inc., USA

SO PCT Int. Appl., 122 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001042505	A2	20010614	WO 2000-US33333	20001208
	WO 2001042505	A3	20020124		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
EP	1235938	A2	20020904	EP 2000-984069	20001208
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
US	2002155484	A1	20021024	US 2002-93769	20020307
PRAI	US 1999-457616	A	19991208		
	WO 2000-US33333	W	20001208		

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OS MARPAT 135:41772

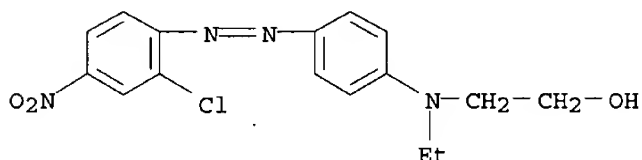
AB Oligonucleotide-fluorophore-**quencher** conjugates wherein the fluorophore moiety has emission wavelengths in the range of about (300) to about (800) nm, and or where the **quencher** includes a substituted 4-(phenyldiazenyl)phenylamine structure provide improved signal to noise ratios and other advantageous characteristics in hybridization and related assays. The oligonucleotide-fluorophore-**quencher** conjugates can be synthesized by utilizing novel phosphoramidite reagents that incorporate the **quencher** moiety based on the substituted 4-(phenyldiazenyl)phenylamine structure, and or novel phosphoramidite reagents that incorporate a fluorophore moiety based on the substituted coumarin, substituted 7-hydroxy-3H-phenoxazin-3-one, or substituted 5,10-dihydro-10-[phenyl]pyrido[2,3-d;6,5-d']dipyrimidine-2,4,6,8-(1H,3H,7H,9H,10H)-tetrone structure. Oligonucleotide-fluorophore-**quencher**-minor groove binder conjugates including a pyrrolo[4,5-e]indolin-7-yl-carbonyl{pyrrolo[4,5-e]indolin-7-yl}carbonyl pyrrolo[4,5-e]indoline-7-carboxylate (DPI3) moiety as the minor groove binder and the substituted 4-(phenyldiazenyl)phenylamine moiety as the **quencher**, were synthesized and have substantially improved hybridization and signal to noise ratio properties.

IT 3180-81-2, Disperse Red 13 344436-74-4

RL: RCT (Reactant); RACT (Reactant or reagent)
(fluorophore-oligonucleotide-4-(phenyldiazenyl)phenylamine
quencher conjugates for use in hybridization assays)

RN 3180-81-2 CAPLUS

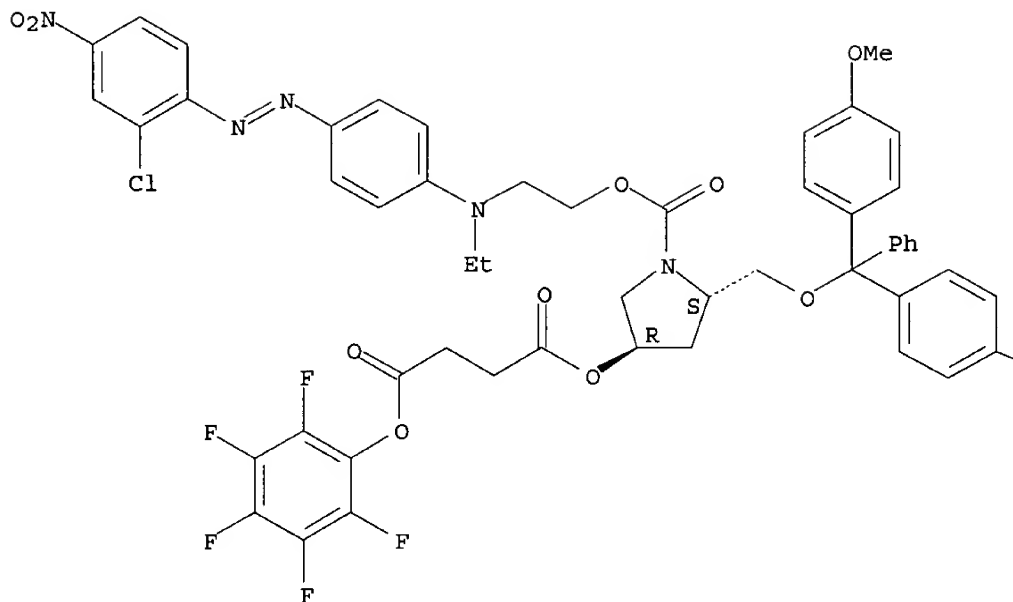
CN Ethanol, 2-[[4-[(2-chloro-4-nitrophenyl)azo]phenyl]ethylamino]- (9CI) (CA INDEX NAME)



RN 344436-74-4 CAPLUS

CN Butanedioic acid, (3R,5S)-5-[[[bis(4-methoxyphenyl)phenylmethoxy]methyl]-1-[[2-[[4-[(2-chloro-4-nitrophenyl)azo]phenyl]ethylamino]ethoxy]carbonyl]-3-pyrrolidinyl pentafluorophenyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.



OMe

IT 344436-39-1P 344436-40-4DP, conjugates with CPG
 344436-42-6P 344436-43-7P 344436-44-8DP,
 conjugates with CPG 344436-48-2P 344436-49-3P
 344436-50-6P 344436-55-1P 344436-56-2P
 344436-57-3P 344436-58-4P 344436-59-5P
 344436-60-8P 344436-72-2P 344436-73-3P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (fluorophore-oligonucleotide-4-(phenyldiazenyl)phenylamine
 quencher conjugates for use in hybridization assays)

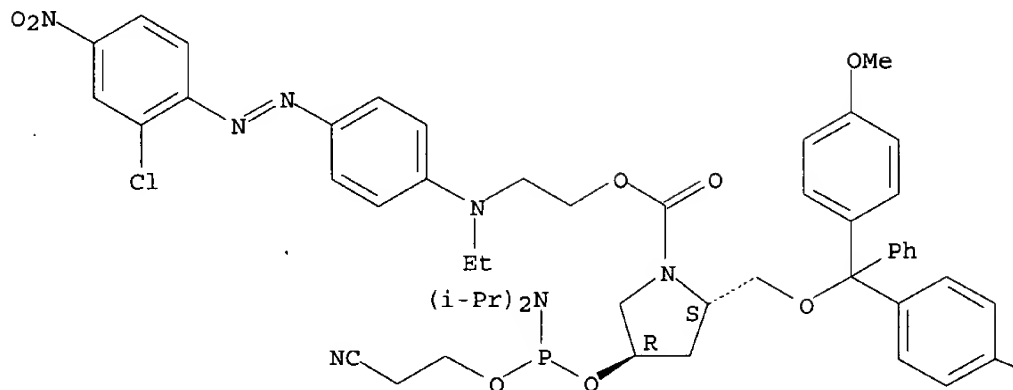
RN 344436-39-1 CAPLUS

CN 1-Pyrrolidinecarboxylic acid, 2-[[bis(4-methoxyphenyl)phenylmethoxy]methyl
]-4-[[[bis(1-methylethyl)amino](2-cyanoethoxy)phosphino]oxy]-,
 2-[[4-[(2-chloro-4-nitrophenyl)azolphenyl]ethylamino]ethyl ester, (2S,4R)-
 (9CI) (CA INDEX NAME)

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Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A

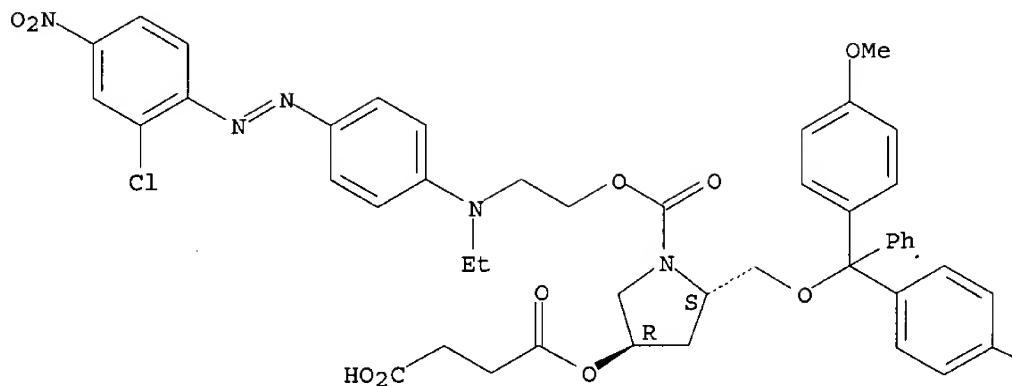


PAGE 1-B

OMe

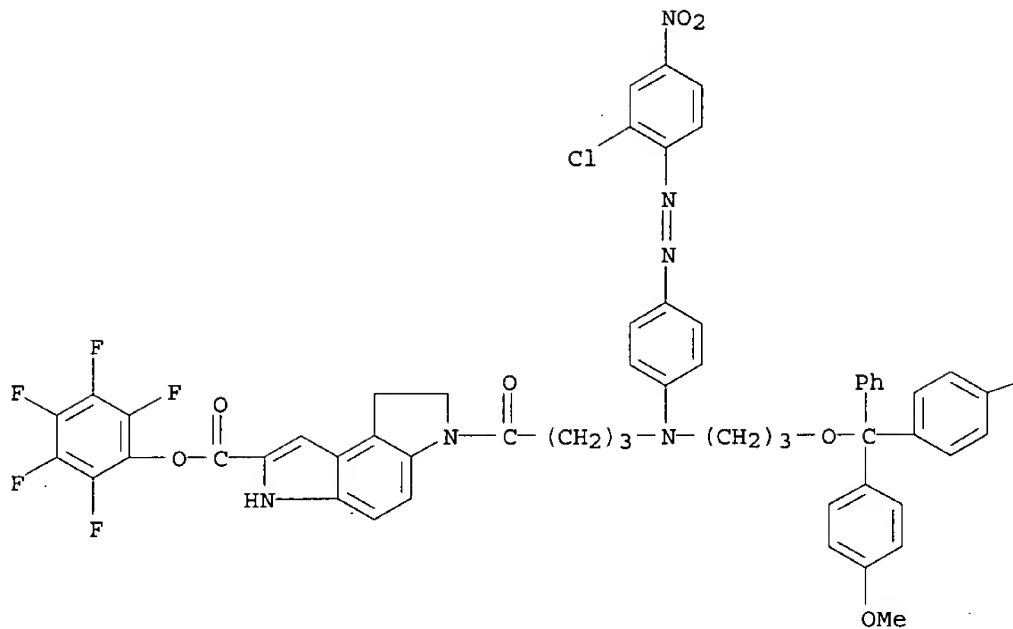
RN 344436-40-4 CAPLUS
CN Butanedioic acid, mono[(3R,5S)-5-[[bis(4-methoxyphenyl)phenylmethoxy]methyl]-1-[[2-[[4-[(2-chloro-4-nitrophenyl)azo]phenyl]ethylamino]ethoxy]carbonyl]-3-pyrrolidinyl] ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.



— OMe

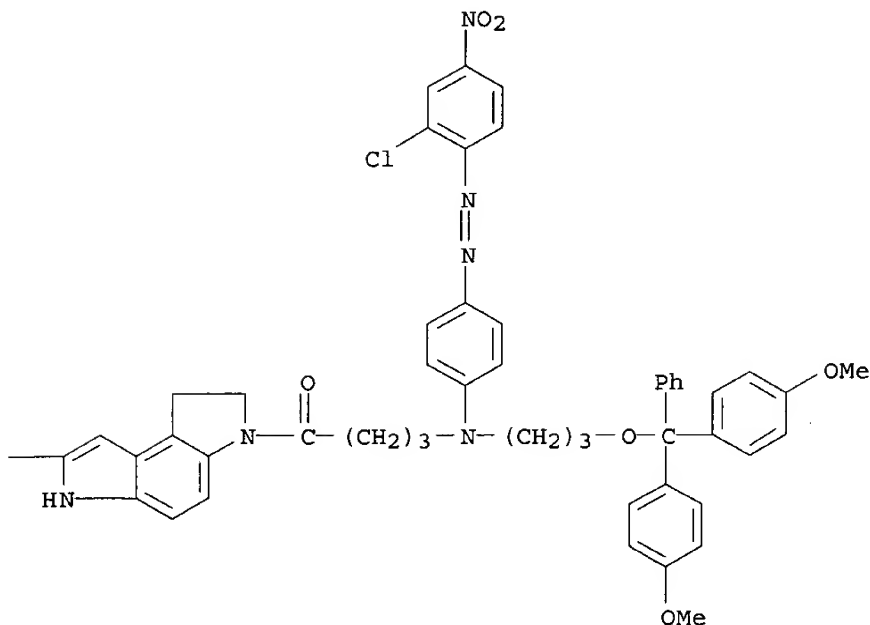
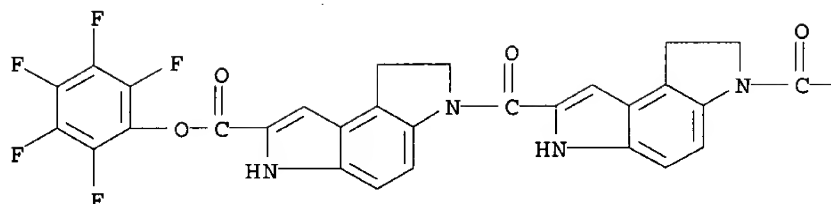
RN 344436-42-6 CAPLUS
 CN Benzo[1,2-b:4,3-b']dipyrrole-2-carboxylic acid, 6-[4-[[3-[bis(4-methoxyphenyl)phenylmethoxy]propyl][4-[(2-chloro-4-nitrophenyl)azo]phenyl]amino]-1-oxobutyl]-3,6,7,8-tetrahydro-, pentafluorophenyl ester (9CI) (CA INDEX NAME)



— OMe

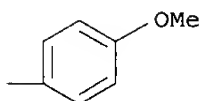
RN 344436-43-7 CAPLUS

CN Benzo[1,2-b:4,3-b']dipyrrole-2-carboxylic acid, 6-[[6-[[6-[4-[[3-[bis(4-methoxyphenyl)phenylmethoxy]propyl] 4-[(2-chloro-4-nitrophenyl)azo]phenyl]amino]-1-oxobutyl]-3,6,7,8-tetrahydrobenzo[1,2-b:4,3-b']dipyrrol-2-yl]carbonyl]-3,6,7,8-tetrahydrobenzo[1,2-b:4,3-b']dipyrrol-2-yl]carbonyl]-3,6,7,8-tetrahydro-, pentafluorophenyl ester (9CI) (CA INDEX NAME)



RN 344436-44-8 CAPLUS

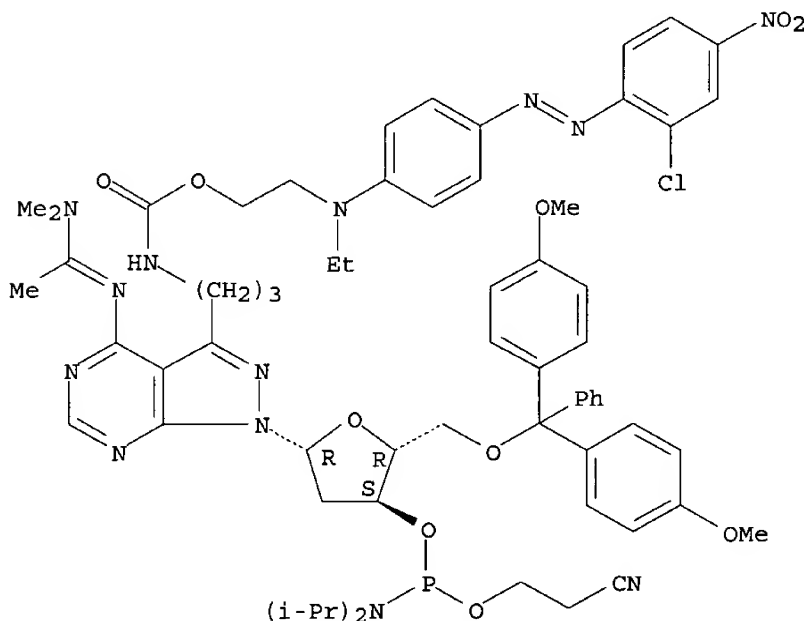
CN Acetic acid, (carboxymethoxy)-, 1-[3-[[[6-[[6-[[6-[4-[[3-[bis(4-methoxyphenyl)phenylmethoxy]propyl][4-[(2-chloro-4-nitrophenyl)azo]phenyl]amino]-1-oxobutyl]-3,6,7,8-tetrahydrobenzo[1,2-b:4,3-b']dipyrrol-2-yl]carbonyl]-3,6,7,8-tetrahydrobenzo[1,2-b:4,3-b']dipyrrol-2-yl]carbonyl]-3,6,7,8-tetrahydrobenzo[1,2-b:4,3-b']dipyrrol-2-yl]carbonyl]amino]propyl] ester (9CI) (CA INDEX NAME)



RN 344436-48-2 CAPLUS

CN Carbamic acid, [3-[1-[5-O-[bis(4-methoxyphenyl)phenylmethyl]-3-O-[[bis(1-methylethyl)amino](2-cyanoethoxy)phosphino]-2-deoxy-.beta.-D-erythro-pentofuranosyl]-4-[[1-(dimethylamino)ethylidene]amino]-1H-pyrazolo[3,4-d]pyrimidin-3-yl]propyl]-, 2-[[4-[(2-chloro-4-nitrophenyl)azo]phenyl]ethylamino]ethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

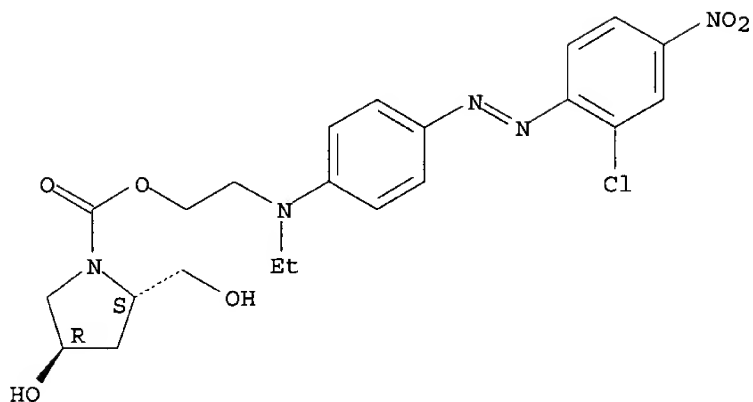


RN 344436-49-3 CAPLUS

CN 1-Pyrrolidinecarboxylic acid, 4-hydroxy-2-(hydroxymethyl)-, 2-[[4-[(2-chloro-4-nitrophenyl)azo]phenyl]ethylamino]ethyl ester, (2S,4R)-(9CI) (CA INDEX NAME)

09567863

Absolute stereochemistry.
Double bond geometry unknown.

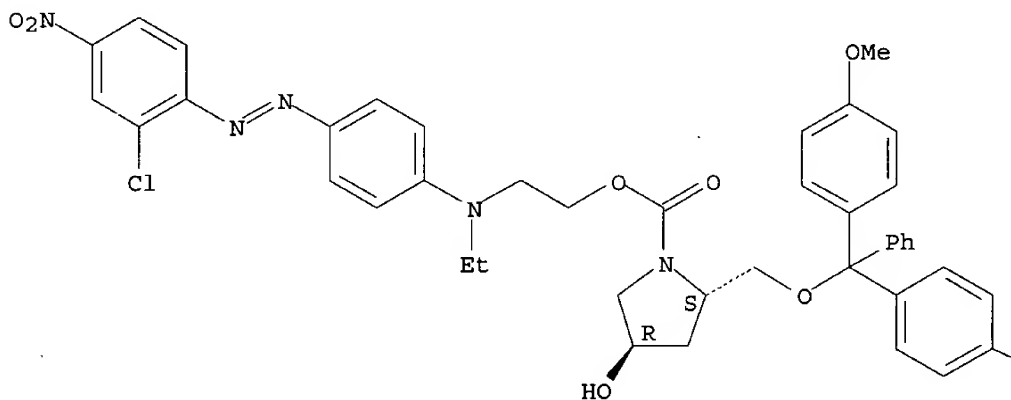


RN 344436-50-6 CAPLUS

CN 1-Pyrrolidinecarboxylic acid, 2-[[bis(4-methoxyphenyl)phenylmethoxy]methyl]-4-hydroxy-, 2-[[4-[(2-chloro-4-nitrophenyl)azo]phenyl]ethylamino]ethyl ester, (2S,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

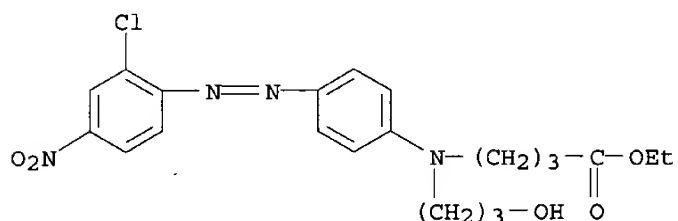
PAGE 1-A



— OMe

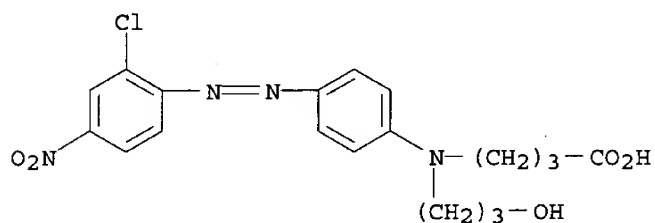
RN 344436-55-1 CAPLUS

CN Butanoic acid, 4-[[4-[(2-chloro-4-nitrophenyl)azo]phenyl](3-hydroxypropyl)amino]-, ethyl ester (9CI) (CA INDEX NAME)



RN 344436-56-2 CAPLUS

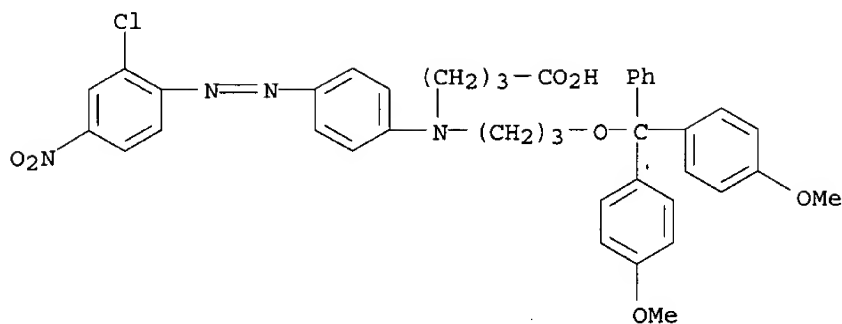
CN Butanoic acid, 4-[[4-[(2-chloro-4-nitrophenyl)azo]phenyl](3-hydroxypropyl)amino]- (9CI) (CA INDEX NAME)



RN 344436-57-3 CAPLUS

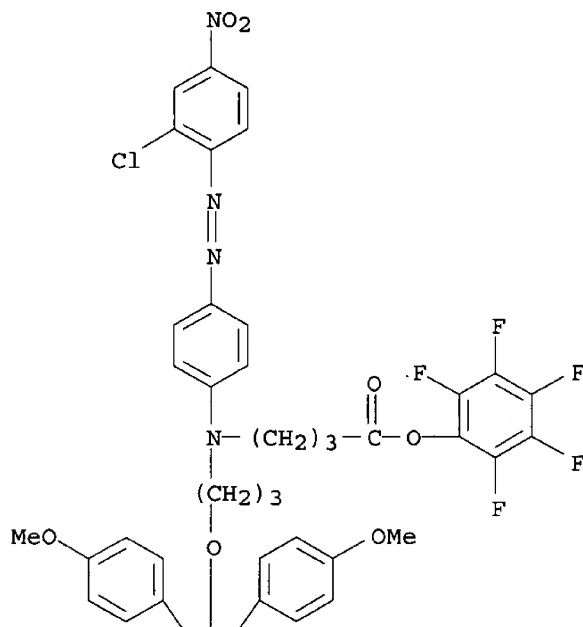
CN Butanoic acid, 4-[[3-[bis(4-methoxyphenyl)phenylmethoxy]propyl][4-[(2-chloro-4-nitrophenyl)azo]phenyl]amino]- (9CI) (CA INDEX NAME)

09567863

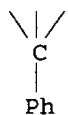


RN 344436-58-4 CAPLUS
 CN Butanoic acid, 4-[[[3-[bis(4-methoxyphenyl)phenylmethoxy]propyl][4-[(2-chloro-4-nitrophenyl)azo]phenyl]amino]-, pentafluorophenyl ester (9CI)
 (CA INDEX NAME)

PAGE 1-A

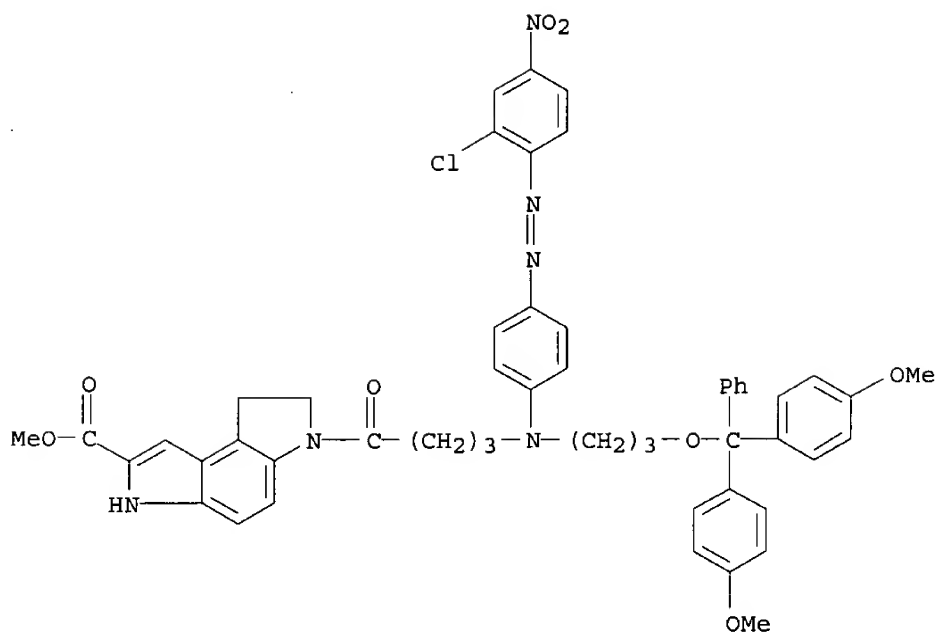


PAGE 2-A



RN 344436-59-5 CAPLUS
 CN Benzo[1,2-b:4,3-b']dipyrrole-2-carboxylic acid, 6-[4-[[[3-[bis(4-methoxyphenyl)phenylmethoxy]propyl][4-[(2-chloro-4-nitrophenyl)azo]phenyl]amino]-1-oxobutyl]-3,6,7,8-tetrahydro-, methyl ester (9CI) (CA INDEX NAME)

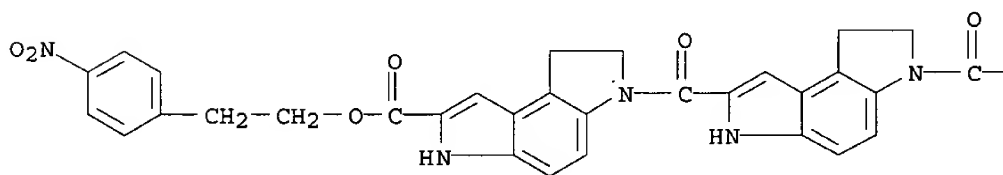
09567863

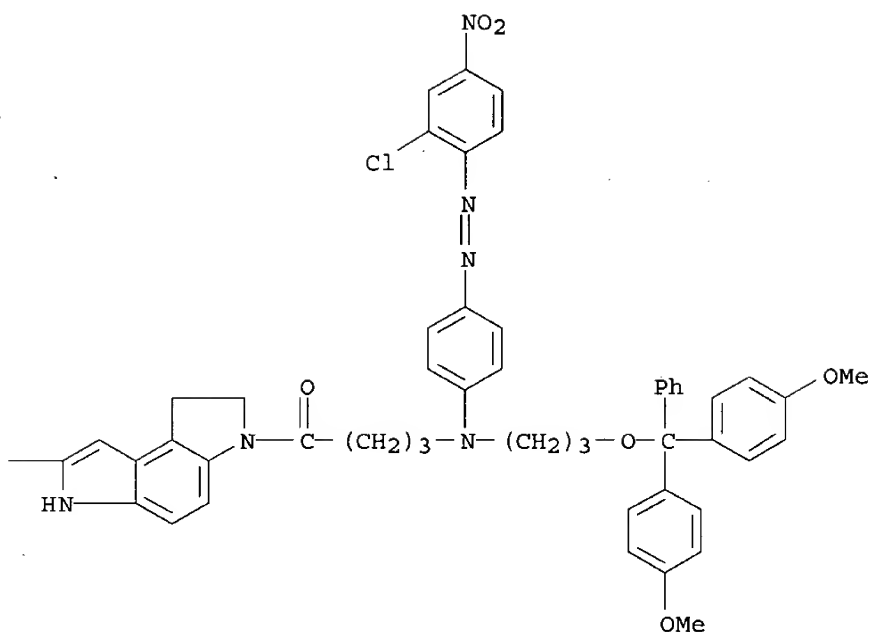


RN 344436-60-8 CAPLUS

CN Benzo[1,2-b:4,3-b']dipyrrole-2-carboxylic acid, 6-[[6-[[6-[4-[[3-[bis(4-methoxyphenyl)phenylmethoxy]propyl][4-[(2-chloro-4-nitrophenyl)azo]phenyl]amino]-1-oxobutyl]-3,6,7,8-tetrahydrobenzo[1,2-b:4,3-b']dipyrrol-2-yl]carbonyl]-3,6,7,8-tetrahydrobenzo[1,2-b:4,3-b']dipyrrol-2-yl]carbonyl]-3,6,7,8-tetrahydro-, 2-(4-nitrophenyl)ethyl ester, (9CI) (CA INDEX NAME)

PAGE 1-A

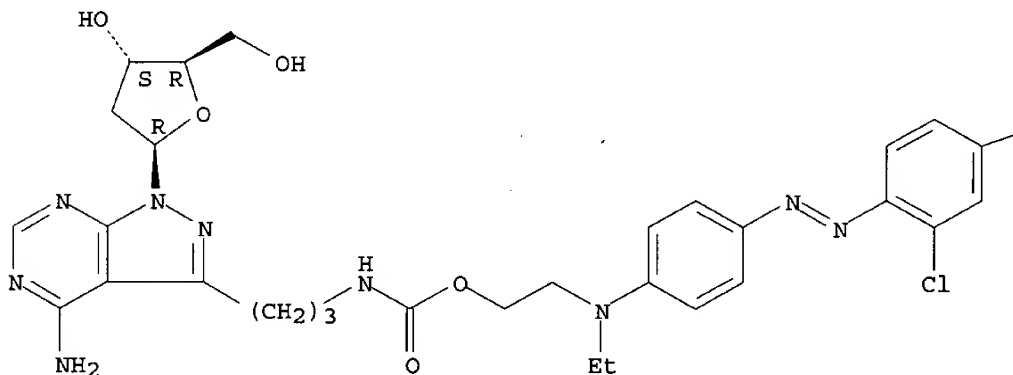




RN 344436-72-2 CAPLUS

CN Carbamic acid, [3-[4-amino-1-(2-deoxy-.beta.-D-erythro-pentofuranosyl)-1H-pyrazolo[3,4-d]pyrimidin-3-yl]propyl]-, 2-[[4-[(2-chloro-4-nitrophenyl)azo]phenyl]ethylamino]ethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.



—NO₂

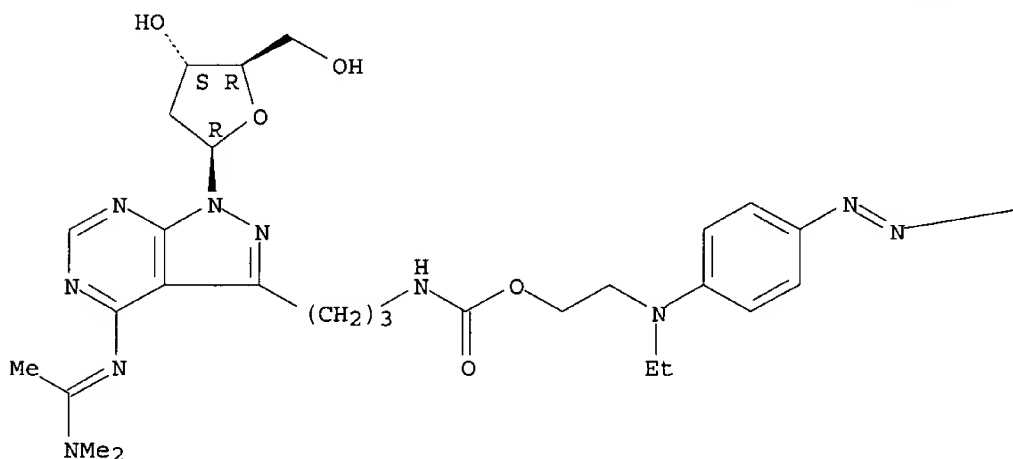
09567863

RN 344436-73-3 CAPLUS

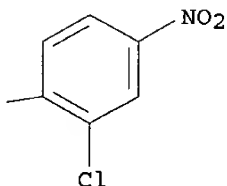
CN Carbamic acid, [3-[1-(2-deoxy-.beta.-D-erythro-pentofuranosyl)-4-[[1-(dimethylamino)ethylidene]amino]-1H-pyrazolo[3,4-d]pyrimidin-3-yl]propyl]-, 2-[[4-[(2-chloro-4-nitrophenyl)azo]phenyl]ethylamino]ethyl ester (9CI)
(CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A



PAGE 1-B



L5 ANSWER 34 OF 96 CAPLUS COPYRIGHT 2003 ACS

AN 2001:435299 CAPLUS

DN 135:43115

TI Monitoring oligonucleotide binding processes using chemiluminescence quenching

IN Rutter, Andrew James; Weeks, Ian; Li, Zhaoqiang; Smith, Keith

PA Molecular Light Technology Research Limited, UK

SO PCT Int. Appl., 58 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001042497	A2	20010614	WO 2000-GB4721	20001211

09567863

WO 2001042497 A3 20011227

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

GB 2359625 A1 20010829 GB 1999-29148 19991210

EP 1242622 A2 20020925 EP 2000-985518 20001211

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

PRAI GB 1999-29148 A 19991210

WO 2000-GB4721 W 20001211

AB Oligonucleotide building processes are monitored by means of an oligonucleotide probe which in one embodiment is labeled at one end with a chemiluminescent label and at the other end with a **quencher** mol. The conformation of the oligonucleotide probe changes according to whether the probe hybridizes with a substantially complementary nucleic acid sequence. In the non-hybridized state the chemiluminescent label is sufficiently close proximity to the **quencher** that the chemiluminescent emission is substantially attenuated, but in the hybridized state the sepn. is such that there is little or no attenuation. Particular probes and emitter/**quencher** pairs are disclosed.

IT 344303-48-6DP, conjugate with AE-NHS-labeled oligonucleotide

RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)

(Hybridization Induced Chemiluminescent Signal, HICS, probe; monitoring oligonucleotide binding processes using chemiluminescence quenching)

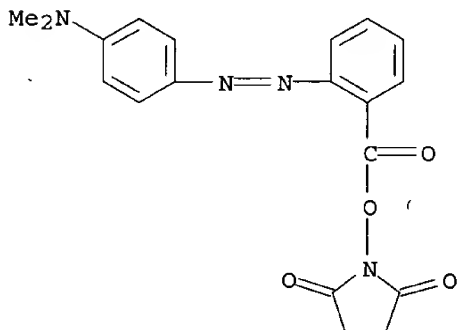
RN 344303-48-6 CAPLUS

CN Benzamide, 2-[[4-(dimethylamino)phenyl]azo]-N-[2-[(iodoacetyl)amino]ethyl]-, compd. with 1-[[2-[[4-(dimethylamino)phenyl]azo]benzoyl]oxy]-2,5-pyrrolidinedione (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 344303-47-5

CMF C19 H18 N4 O4

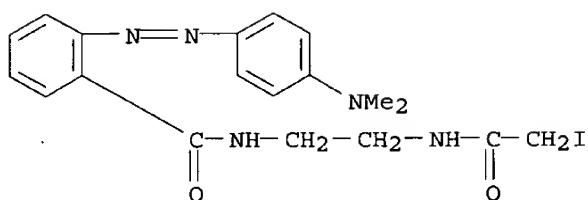


CM 2

CRN 344303-46-4

CMF C19 H22 I N5 O2

09567863

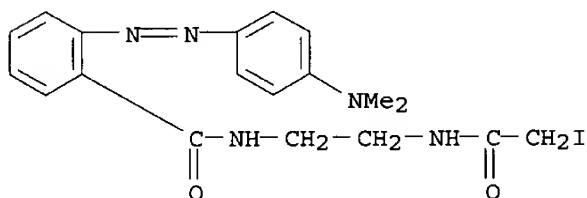


IT 344303-46-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(IA-methyl red; monitoring oligonucleotide binding processes using chemiluminescence quenching)

RN 344303-46-4 CAPLUS

CN Benzamide, 2-[[4-(dimethylamino)phenyl]azo]-N-[2-[(iodoacetyl)amino]ethyl]- (9CI) (CA INDEX NAME)

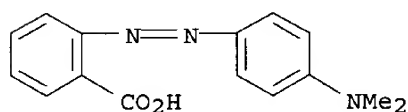


IT 493-52-7, Methyl red

RL: ARG (Analytical reagent use); RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent); USES (Uses)
(monitoring oligonucleotide binding processes using chemiluminescence quenching)

RN 493-52-7 CAPLUS

CN Benzoic acid, 2-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)



IT 344303-48-6P 344303-51-1P 344303-54-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(monitoring oligonucleotide binding processes using chemiluminescence quenching)

RN 344303-48-6 CAPLUS

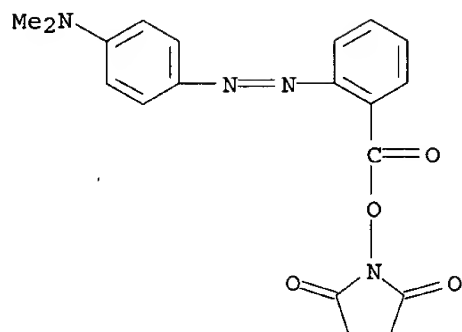
CN Benzamide, 2-[[4-(dimethylamino)phenyl]azo]-N-[2-[(iodoacetyl)amino]ethyl]-, compd. with 1-[[2-[[4-(dimethylamino)phenyl]azo]benzoyl]oxy]-2,5-pyrrolidinedione (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 344303-47-5

CMF C19 H18 N4 O4

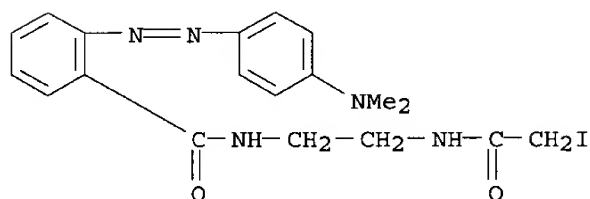
09567863



CM 2

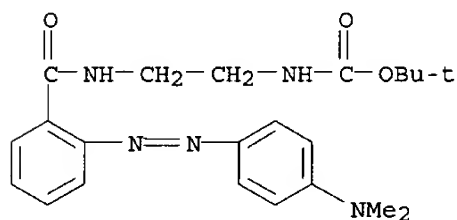
CRN 344303-46-4

CMF C19 H22 I N5 O2



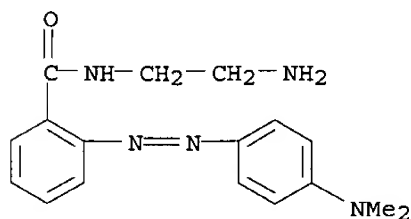
RN 344303-51-1 CAPLUS

CN Carbamic acid, [2-[[2-[[4-(dimethylamino)phenyl]azo]benzoyl]amino]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



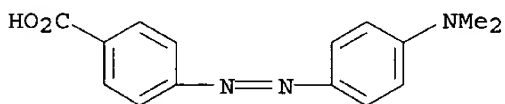
RN 344303-54-4 CAPLUS

CN Benzamide, N-(2-aminoethyl)-2-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)



09567863

AN 2001:345196 CAPLUS
DN 136:145635
TI Bordetella pertussis detection by spectrofluorometry using polymerase chain reaction (PCR) and a molecular beacon probe
AU Poddar, S. K.; Le, C. T.
CS DoD Center for Deployment Health Research, Naval Health Research Center, San Diego, CA, 92186-5122, USA
SO Molecular and Cellular Probes (2001), 15(3), 161-167
CODEN: MCPRE6; ISSN: 0890-8508
PB Academic Press
DT Journal
LA English
AB Bordetella pertussis was detected by spectrofluorometry following PCR incorporating a mol. beacon probe in the reaction. A DNA fragment from the tandem repeat sequence region (IS 481) of the genome of B. pertussis was amplified in presence of the probe complementary to an internal segment of the amplified DNA fragment. Fluorescein (FAM) and DABCYL were used as the fluorophore and **quencher** in the probe. The probe was characterized for its signal to noise ratio by homogeneous soln. hybridization with a complementary oligonucleotide. Measurement of fluorescent signal at the emission maxima of FAM, immediately after a PCR was used to detect the B. pertussis target, with no addnl. steps. Presence of B. pertussis in a sample was also examd. by agarose gel electrophoresis of the PCR product. A serial dild. stock of B. pertussis (ATCC strain #9797) and fourteen clin. isolates of B. pertussis were examd. The sensitivity of detection by fluorescent measurement was found to be at least in the range of 0.cntdot.01-0.cntdot.1 CFU per 10 .mu.l of the sample and was equal to or better than that detected by agarose gel anal. (c) 2001 Academic Press.
IT 6268-49-1
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(Bordetella pertussis detection by spectrofluorometry using polymerase chain reaction (PCR) and a mol. beacon probe)
RN 6268-49-1 CAPLUS
CN Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)



RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 36 OF 96 CAPLUS COPYRIGHT 2003 ACS
AN 2001:315904 CAPLUS
DN 135:88100
TI Aptamer-Based Folding Fluorescent Sensor for Cocaine
AU Stojanovic, Milan N.; de Prada, Paloma; Landry, Donald W.
CS Division of Clinical Pharmacology and Experimental Therapeutics Department of Medicine, Columbia University, New York, NY, 10032, USA
SO Journal of the American Chemical Society (2001), 123(21), 4928-4931
CODEN: JACSAT; ISSN: 0002-7863
PB American Chemical Society
DT Journal
LA English
AB We adapted in two steps a deoxyribonucleotide-based aptamer to signal the recognition of cocaine: an instability was engineered in one stem of a three-way junction that forms the cocaine-binding pocket and the resulting

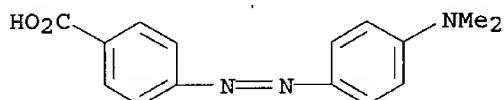
short stem was end labeled with a fluorophore and a **quencher**. In the absence of cocaine, two stems are open, but in its presence they close and the three-way junction forms. This major structural change brings fluorophore and **quencher** together thereby signaling the presence and concn. of ligand. The sensor is selective for cocaine over its metabolites, can operate in serum, and is useful for the screening of cocaine hydrolases.

IT 6268-49-1

RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(double labeled aptamer, constructed with fluorescein as fluorophore and dabcy1 as **quencher**)

RN 6268-49-1 CAPLUS

CN Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)



RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 37 OF 96 CAPLUS COPYRIGHT 2003 ACS

AN 2001:297975 CAPLUS

DN 136:1252

TI Self-reporting PNA/DNA primers for PCR analysis

AU Fiandaca, Mark J.; Hyldig-Nielsen, Jens J.; Gildea, Brian D.; Coull, James M.

CS Boston Probes, Bedford, MA, 01730, USA

SO Genome Research (2001), 11(4), 609-613

CODEN: GEREFS; ISSN: 1088-9051

PB Cold Spring Harbor Laboratory Press

DT Journal

LA English

AB The authors report a new fluorogenic method for sealed-tube PCR anal. using a **quencher**-labeled peptide nucleic acid (Q-PNA) probe. The Q-PNA hybridizes to a complementary tag sequence located at the 5' end of a 5' fluorophore-labeled oligonucleotide primer, quenching the primer's fluorescence. Incorporation of the primer into a doublestranded amplicon causes displacement of the Q-PNA such that the fluorescence of the sample is a direct indication of the amplicon concn. The Q-PNA is able to quench multiple primers bearing distinct 5' fluorophores in a single reaction. The authors show realtime quant. detection of a single-copy gene, K-ras, from human genomic DNA, as well as an endpoint multiplex assay for Chlamydia trachomatis and Neisseria gonorrhoeae targets. Because the Q-PNA may be used to quench any primer that contains the 5' tag sequence, it is possible to inexpensively adapt an existing primer set for use in a self-reporting fluorescent assay by including the tag sequence in one of the primers.

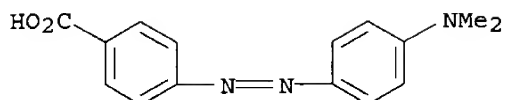
IT 6268-49-1

RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(self-reporting PNA/DNA primers for PCR anal.)

RN 6268-49-1 CAPLUS

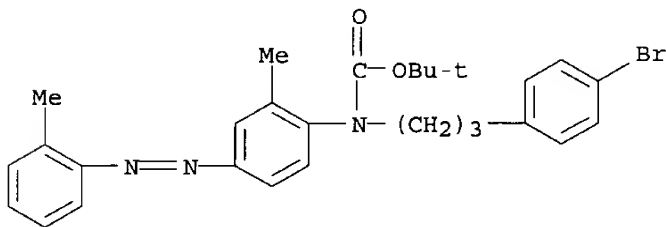
CN Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)

09567863

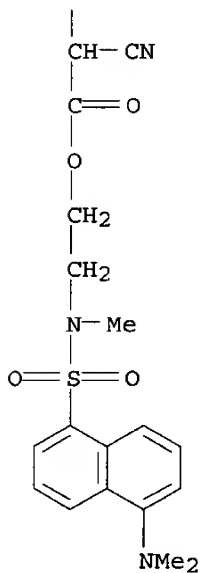
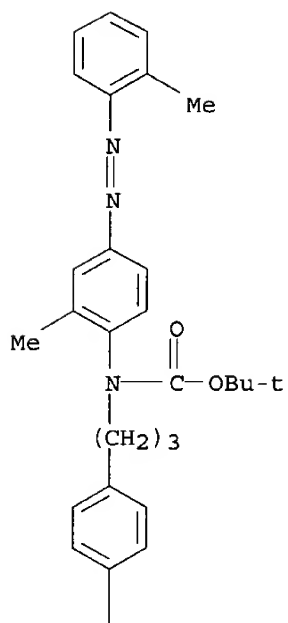


RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 38 OF 96 CAPLUS COPYRIGHT 2003 ACS
AN 2001:288492 CAPLUS
DN 135:76555
TI Palladium-Catalyzed Arylation of Ethyl Cyanoacetate. Fluorescence
Resonance Energy Transfer as a Tool for Reaction Discovery
AU Stauffer, Shaun R.; Beare, Neil A.; Stambuli, James P.; Hartwig, John F.
CS Department of Chemistry, Yale University, New Haven, CT, 06520-8107, USA
SO Journal of the American Chemical Society (2001), 123(19), 4641-4642
CODEN: JACSAT; ISSN: 0002-7863
PB American Chemical Society
DT Journal
LA English
OS CASREACT 135:76555
AB A fluorescence resonance energy transfer assay is described for evaluation
of catalytic activity of a ligand library for Pd-catalyzed Heck arylation.
In the assay, the arylation of a strongly fluorescent dansyl cyanoacetate
with a bromoaryl azo dye **quencher** produced a coupling product
whose dansyl group emission was quenched by the diazo moiety; the emission
intensity was then converted to reaction yield. Ligands selected by the
assay were evaluated in preparative scale arylation of Et cyanoacetate
with aryl bromides, leading to mono- or diarylcynoacetates.
IT **338799-89-6**
RL: RCT (Reactant); RACT (Reactant or reagent)
(Heck arylation; fluorescence resonance energy transfer assay for
evaluation of catalytic activity of a ligand library for Pd-catalyzed
Heck arylation)
RN 338799-89-6 CAPLUS
CN Carbamic acid, [3-(4-bromophenyl)propyl][2-methyl-4-[(2-
methylphenyl)azo]phenyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



IT **347400-72-0P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(fluorescence resonance energy transfer assay for evaluation of
catalytic activity of a ligand library for Pd-catalyzed Heck arylation)
RN 347400-72-0 CAPLUS
CN Benzeneacetic acid, .alpha.-cyano-4-[3-[[[(1,1-dimethylethoxy)carbonyl][2-
methyl-4-[(2-methylphenyl)azo]phenyl]amino]propyl]-, 2-[[[5-
(dimethylamino)-1-naphthalenyl]sulfonyl]methylamino]ethyl ester (9CI) (CA
INDEX NAME)



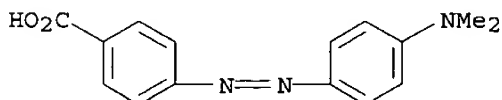
RE.CNT 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 39 OF 96 CAPLUS COPYRIGHT 2003 ACS
AN 2001:284148 CAPLUS
DN 134:306118
TI Template-dependent ligation with PNA-DNA chimeric probes
IN Egholm, Michael; Chen, Caifu

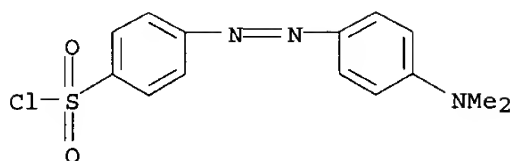
09567863

PA PE Corporation, USA
SO PCT Int. Appl., 66 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

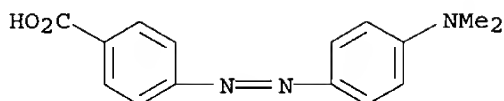
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001027326	A2	20010419	WO 2000-US27730	20001006
	WO 2001027326	A3	20020510		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	US 6297016	B1	20011002	US 1999-416003	19991008
	EP 1220953	A2	20020710	EP 2000-968853	20001006
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL			
	US 6469151	B1	20021022	US 2001-881557	20010614
	US 2002177133	A1	20021128		
PRAI	US 1999-416003	A	19991008		
	WO 2000-US27730	W	20001006		
AB	The invention provides methods, kits, and compns. for ligation of peptide-nucleic acid (PNA)-DNA chimeric probes and oligonucleotides when they are hybridized adjacently to template nucleic acids using ligases and ligation reagents. The invention is based in part on the discovery that a ligase enzyme can ligate a PNA-DNA chimeric probe and a second probe under a broad range of exptl. conditions and variables. Structural requirements of the chimeras for ligation include 5 to 15 contiguous PNA monomer units, 2 or more contiguous nucleotides, and a 3' hydroxyl or 5' hydroxyl terminus. The chimera and/or oligonucleotide may be labeled with fluorescent dyes or other labels. The methods include, for example, oligonucleotide-ligation assays (OLA) and single nucleotide polymorphism detection.				
IT	6268-49-1 56512-49-3, DABSYL chloride				
	RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)				
	(fluorescent quencher ; template-dependent ligation with PNA (peptide-nucleic acid)-DNA chimeric probes)				
RN	6268-49-1 CAPLUS				
CN	Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)				



RN 56512-49-3 CAPLUS
CN Benzenesulfonyl chloride, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)



L5 ANSWER 40 OF 96 CAPLUS COPYRIGHT 2003 ACS
 AN 2001:187368 CAPLUS
 DN 135:237255
 TI Simultaneous absolute quantification of target and control templates by
 real-time fluorescence reverse transcription-PCR using
 4-(4'-dimethylaminophenylazo)benzoic acid as a dark **quencher** dye
 AU Kreuzer, Karl-Anton; Bohn, Alexander; Lupberger, Joachim; Solassol,
 Jerome; Le Coutre, Philipp; Schmidt, Christian Andreas
 CS Abteilung fur Innere Medizin und Poliklinik m.S. Hamatologie und
 Onkologie, Medizinische Fakultat Charite der Humboldt-Universitat zu
 Berlin, Berlin, 13353, Germany
 SO Clinical Chemistry (Washington, DC, United States) (2001), 47(3), 486-490
 CODEN: CLCHAU; ISSN: 0009-9147
 PB American Association for Clinical Chemistry
 DT Journal
 LA English
 AB Background: Despite the many advantages of real-time fluorescence reverse
 transcription-PCR (RT-PCR) as a quant. anal. tool, simultaneous
 quantification of target and ref. templates within one reaction has not
 been reported. We developed such an assay with an internal ref. template.
 Methods: For quantification of target and ref. sequences, we used two
 fluorescent probes in one reaction vessel on an ABI PRISM 7700 SDS
 instrument. Fluorescent probes were labeled with either
 6-carboxy-fluorescein or hexachloro-6-carboxy-fluorescein as reporter dye
 and 4-(4'-dimethylaminophenylazo)benzoic acid (DABCYL) as a dark
quencher fluorophore. To test the sensitivity and specificity of
 this assay, serial dilns. of ref. and target templates were analyzed in
 one PCR reaction. In the presence of 10 .beta.-actin mols. as control
 templates, 105 bcr/abl mols. were amplified, and 105 .beta.-actin mols.
 were amplified in the presence of 10 bcr/abl copies. We also performed
 single and duplex measurements on samples from five patients with
 documented Philadelphia chromosome-pos. chronic myelogenous leukemia
 disease courses (72 samples) and three with minor bcr/abl+ acute
 myelogenous leukemias (26 samples). Results: For M-bcr/abl duplex RT-PCR,
 the correlation coeff. (r) for starting template amts. and threshold cycle
 values was 0.99; for m-bcr/abl, r = 0.96, indicating a precise log-linear
 relation for 10-105 copies/100 ng of cDNA. In the same PCR reactions, r =
 0.99 for .beta.-actin (coamplified with M-bcr/abl or m-bcr/abl) for
 103-107 copies/100 ng cDNA. The linear correlation coeff. for single and
 duplex measurements was 0.98 for M- and m-bcr/abl in patient samples.
 Conclusions: DABCYL can be used as dark **quencher** fluorophore in
 real-time fluorescence PCR. The duplex fluorescence RT-PCR assay for
 bcr/abl and .beta.-actin transcripts allows monitoring of bcr/abl+
 leukemias.
 IT 6268-49-1
 RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
 (as a dark **quencher**; simultaneous abs. quantification of
 target and control templates by real-time fluorescence reverse
 transcription-PCR using 4-(4'-dimethylaminophenylazo)benzoic acid as a
 dark **quencher** dye)
 RN 6268-49-1 CAPLUS
 CN Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)



RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 41 OF 96 CAPLUS COPYRIGHT 2003 ACS

AN 2001:178382 CAPLUS

DN 134:219359

TI Photon reducing agents and compositions for reducing undesirable light emission in fluorescence assays

IN Zlokarnik, Gregor; Negulescu, Paul; Knapp, Tom; Tsien, Roger Y.; Rink, Tim

PA Aurora Biosciences Corporation, USA

SO U.S., 39 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6200762	B1	20010313	US 1998-118497	19980717
	US 6214563	B1	20010410	US 1998-120516	19980721
	US 6221612	B1	20010424	US 1998-122477	19980723
	US 2001006820	A1	20010705	US 2001-759629	20010112
PRAI	US 1997-54519P	P	19970801		
	US 1998-122477	A1	19980723		

AB The present invention provides a method for reducing undesirable light emission from a sample using at least one photon producing agent and at least one photon reducing agent (e.g. dye-based photon reducing agents). The present invention further provides a method for reducing undesirable light emission from a sample (e.g., a biochem. or cellular sample) with at least one photon producing agent and at least one collisional **quencher**. The present invention also provides a method for reducing undesirable light emission from a sample (e.g., a biochem. or cellular sample) with at least one photon producing agent and at least one **quencher**, such as an electronic **quencher**. The present invention further provides a method of detg. bound and free analyte in a sample using at least one photon reducing agent. The present invention also provides a method of screening test chems. in fluorescent assays using photon reducing agents. The present invention also provides compns. and kits for practicing these methods.

IT 328946-36-7, Tararaf

RL: ARU (Analytical role, unclassified); PEP (Physical, engineering or chemical process); ANST (Analytical study); PROC (Process)

(Tararaf, as photon reducing agent to reduce soln. fluorescence; photon reducing agents and compns. for reducing undesirable light emission in fluorescence assays)

RN 328946-36-7 CAPLUS

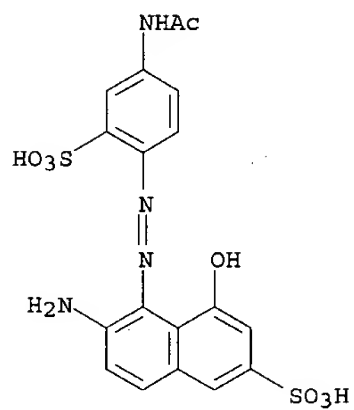
CN 1H-Pyrazole-3-carboxylic acid, 4,5-dihydro-5-oxo-1-(4-sulfophenyl)-4-[(4-sulfophenyl)azo]-, trisodium salt, mixt. with 5-[[4-(acetilamino)-2-sulfophenyl]azo]-6-amino-4-hydroxy-2-naphthalenesulfonic acid disodium salt and 2-amino-5-[(4-amino-3-sulfophenyl)(4-imino-3-sulfo-2,5-cyclohexadien-1-ylidene)methyl]-3-methylbenzenesulfonic acid disodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 6360-07-2

09567863

CMF C18 H16 N4 O8 S2 . 2 Na

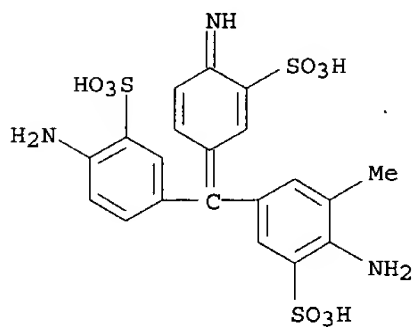


● 2 Na

CM 2

CRN 3244-88-0

CMF C20 H19 N3 O9 S3 . 2 Na



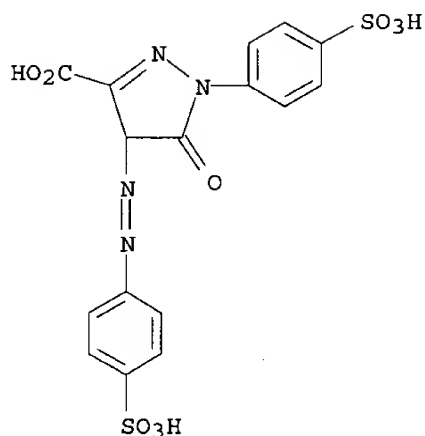
● 2 Na

CM 3

CRN 1934-21-0

CMF C16 H12 N4 O9 S2 . 3 Na

09567863



●3 Na

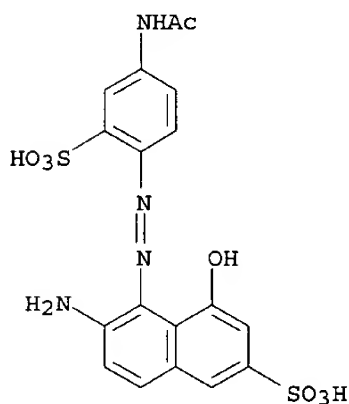
IT 6360-07-2, Acid Red 37

RL: ARU (Analytical role, unclassified); BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); PRP (Properties); ANST (Analytical study); BIOL (Biological study); PROC (Process)

(as photon reducing agent to reduce soln. fluorescence; photon reducing agents and compns. for reducing undesirable light emission in fluorescence assays)

RN 6360-07-2 CAPLUS

CN 2-Naphthalenesulfonic acid, 5-[[4-(acetylamino)-2-sulfophenyl]azo]-6-amino-4-hydroxy-, disodium salt (9CI) (CA INDEX NAME)



●2 Na

RE.CNT 70 THERE ARE 70 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 42 OF 96 CAPLUS COPYRIGHT 2003 ACS

AN 2001:165934 CAPLUS

DN 134:204738

09567863

TI Quenchers for fluorescence assays to reduce undesirable light emission
IN Knapp, Tom; Zlokarnik, Gregor; Negulescu, Paul; Tsien, Roger Y.; Rink, Tim
PA Aurora Biosciences Corporation, USA
SO Eur. Pat. Appl., 50 pp.
CODEN: EPXXDW

DT Patent
LA English

FAN.CNT 1

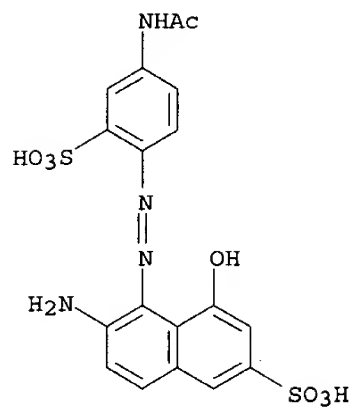
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	---	-----	-----	-----
PI	EP 1081495	A1	20010307	EP 1999-117221	19990901
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
PRAI	EP 1999-117221		19990901		
AB	The present invention provides a method for reducing undesirable light emission from a sample using at least one photon producing agent and at least one photon reducing agent (e.g. dye-based photon reducing agents). The present invention further provides a method for reducing undesirable light emission from a sample (e.g., a biochem. or cellular sample) with at least one photon producing agent and at least one collisional quencher . The present invention also provides a method for reducing undesirable light emission from a sample (e.g., a biochem. or cellular sample) with at least one photon producing agent and at least one quencher , such as an electronic quencher . The present invention also provides a system and method of screening test chems. in fluorescent assays using photon reducing agents. The present invention also provides compns., pharmaceutical compns., and kits for practicing these methods.				
IT	328946-36-7, Tararaf RL: ARU (Analytical role, unclassified); PEP (Physical, engineering or chemical process); ANST (Analytical study); PROC (Process) (Tararaf, as photon reducing agent to reduce soln. fluorescence; quenchers for fluorescence assays to reduce undesirable light emission)				
RN	328946-36-7 CAPLUS				
CN	1H-Pyrazole-3-carboxylic acid, 4,5-dihydro-5-oxo-1-(4-sulfophenyl)-4-[(4-sulfophenyl)azo]-, trisodium salt, mixt. with 5-[[4-(acetylamino)-2-sulfophenyl]azo]-6-amino-4-hydroxy-2-naphthalenesulfonic acid disodium salt and 2-amino-5-[(4-amino-3-sulfophenyl)(4-imino-3-sulfo-2,5-cyclohexadien-1-ylidene)methyl]-3-methylbenzenesulfonic acid disodium salt (9CI) (CA INDEX NAME)				

CM 1

CRN 6360-07-2

CMF C18 H16 N4 O8 S2 . 2 Na

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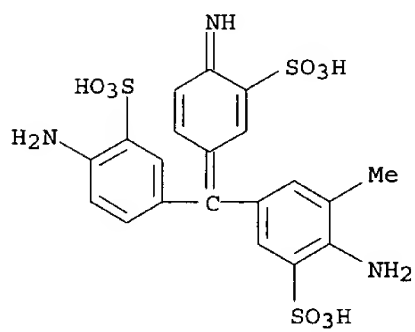


● 2 Na

CM 2

CRN 3244-88-0

CMF C20 H19 N3 O9 S3 . 2 Na



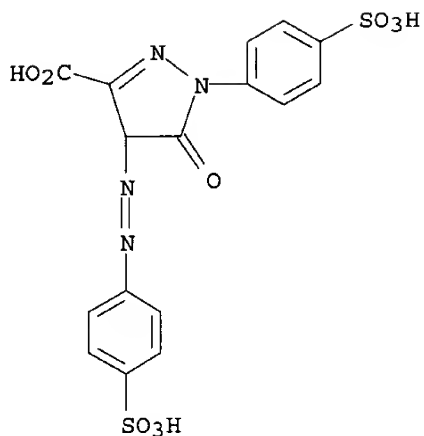
● 2 Na

CM 3

CRN 1934-21-0

CMF C16 H12 N4 O9 S2 . 3 Na

09567863



●3 Na

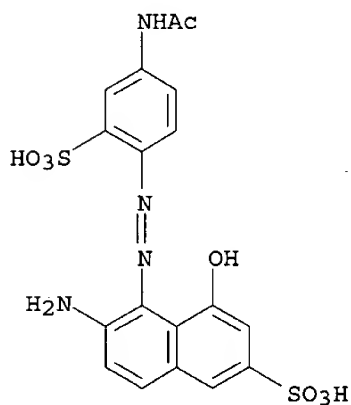
IT 6360-07-2, Acid Red 37

RL: ARU (Analytical role, unclassified); BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); PRP (Properties); ANST (Analytical study); BIOL (Biological study); PROC (Process)

(as photon reducing agent to reduce soln. fluorescence; quenchers for fluorescence assays to reduce undesirable light emission)

RN 6360-07-2 CAPLUS

CN 2-Naphthalenesulfonic acid, 5-[[4-(acetlamino)-2-sulfophenyl]azo]-6-amino-4-hydroxy-, disodium salt (9CI) (CA INDEX NAME)



●2 Na

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 43 OF 96 CAPLUS COPYRIGHT 2003 ACS

AN 2000:842153 CAPLUS

DN 134:13990

TI Hairpin-forming primers for nucleic acid amplification that minimize

09567863

false-positive amplification and increase the sensitivity of detection of single-nucleotide substitutions

IN Tyagi, Sanjay; Kramer, Fred R.; Vartikian, Robert
 PA Public Health Research Institute of the City of New York, Inc., USA
 SO PCT Int. Appl., 39 pp.
 CODEN: PIXXD2

DT Patent
 LA English
 FAN.CNT 1

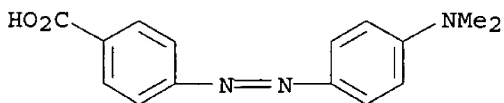
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000071562	A1	20001130	WO 2000-US11979	20000503
	W: AU, CA, JP				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 6277607	B1	20010821	US 1999-317350	19990524
	EP 1185546	A1	20020313	EP 2000-928752	20000503
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	JP 2003500038	T2	20030107	JP 2000-619817	20000503
	US 6365729	B1	20020402	US 2001-903915	20010712
PRAI	US 1999-317350	A	19990524		
	WO 2000-US11979	W	20000503		

AB For nucleic acid amplification including extension of primers by a DNA polymerase, high specificity primers are provided. A method of minimizing false-pos. results from DNA amplification, e.g. from primer-dimer formation, and increasing the efficiency of detection of single nucleotide substitutions is described. The methods uses primers that form a type of hairpin structure in which a single-stranded loop separates complementary 3' and 5' arms and in which the loop and the 3' arms are complementary to the target nucleic acid. When these primers do not bind to the target sequence, they form a hairpin loop and are not available for generating false-pos. amplification products. Amplification methods, assays and kits including such primers are included in the invention. Reconstruction expts. indicate that using these primers allows the detection of a mutation in a sample at a frequency of 1 in 20,000 wild-type mols.

IT **6268-49-1D**, oligonucleotide conjugates
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (as **quencher** moiety; hairpin-forming primers for nucleic acid amplification that minimize false-pos. amplification and increase sensitivity of detection of single-nucleotide substitutions)

RN 6268-49-1 CAPLUS

CN Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)



RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 44 OF 96 CAPLUS COPYRIGHT 2003 ACS
 AN 2000:800649 CAPLUS
 DN 135:14815
 TI Wavelength-shifting molecular beacons
 AU Tyagi, Anjay; Marras, Salvatore A. E.; Kramer, Fred Russell
 CS Department of Molecular Genetics, Public Health Research Institute, New York, NY, 10016, USA
 SO Nature Biotechnology (2000), 18(11), 1191-1196

09567863

CODEN: NABIF9; ISSN: 1087-0156

PB Nature America Inc.

DT Journal

LA English

AB The authors describe wavelength-shifting mol. beacons, which are nucleic acid hybridization probes that fluoresce in a variety of different colors, yet are excited by a common monochromatic light source. The twin functions of absorption of energy from the excitation light and emission of that energy in the form of fluorescent light are assigned to two sep. fluorophores in the same probe. These probes contain a harvester fluorophore that absorbs strongly in the wavelength range of the monochromatic light source, an emitter fluorophore of the desired emission color, and a nonfluorescent **quencher**. In the absence of complementary nucleic acid targets, the probes are dark, whereas in the presence of targets, they fluoresce-not in the emission range of the harvester fluorophore that absorbs the light, but rather in the emission range of the emitter fluorophore. This shift in emission spectrum is due to the transfer of the absorbed energy from the harvester fluorophore to the emitter fluorophore by fluorescence resonance energy transfer, and it only takes place in probes that are bound to targets. Wavelength-shifting mol. beacons are substantially brighter than conventional mol. beacons that contain a fluorophore that cannot efficiently absorb energy from the available monochromatic light source. The authors describe the spectral characteristics of wavelength-shifting mol. beacons, and we demonstrate how their use improves and simplifies multiplex genetic analyses.

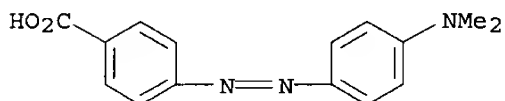
IT 6268-49-1D, oligodeoxyribonucleotide derivs.

RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)

(wavelength-shifting mol. beacons)

RN 6268-49-1 CAPLUS

CN Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)



RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 45 OF 96 CAPLUS COPYRIGHT 2003 ACS

AN 2000:767101 CAPLUS

DN 134:175042

TI Fluorescent Sensors Based on Aptamer Self-Assembly

AU Stojanovic, Milan N.; de Prada, Paloma; Landry, Donald W.

CS Division of Clinical Pharmacology and Experimental Therapeutics Department of Medicine, Columbia University, New York, NY, 10032, USA

SO Journal of the American Chemical Society (2000), 122(46), 11547-11548

CODEN: JACSAT; ISSN: 0002-7863

PB American Chemical Society

DT Journal

LA English

AB We describe herein a simple and potentially general approach to the rational construction of sensors based on fluorophore-labeled heterodimeric aptamers that assemble as a function of ligand concn. In the course of constructing sensors capable of reporting the activity of anticocaine catalytic antibodies, we developed oligo-deoxynucleotide aptamers for cocaine by std. methods. To construct a heterodimeric aptamer, we began with a cocaine-binding 39-mer with $K_d = 5 \mu\text{M}$ at $c(\text{Mg}^{2+}) = 1 \text{ mM}$ and, based on the suggested secondary structure, sepd. it

at a predicted loop into two subunits (apparent K_d of the self-assembled aptamer, .apprx.200 . μ M by equil. gel filtration). We labeled one subunit with a 5'-6-carboxyfluorescein fluorophore and the other with a 3'-dabcyl **quencher**. The sensor reliably reported concns. of cocaine in the range from 10 to 1250 . μ M with fluorescein emission at 518 nm (.lambda.ex = 472) that was quenched to 65% of the initial value. The concn. range can be shifted to 1 . μ M by employing higher concns. of Mg^{2+} or by prolonging incubation times. This sensor showed excellent selectivity for cocaine over its metabolites benzoylecgonine and ecgonine Me ester.

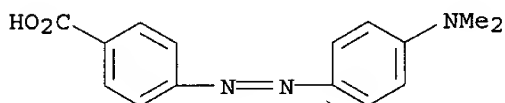
IT **6268-49-1**

RL: ARG (Analytical reagent use); RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent); USES (Uses)

(fluorescent sensors based on aptamer self-assembly)

RN 6268-49-1 CAPLUS

CN Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)



RE.CNT 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 46 OF 96 CAPLUS COPYRIGHT 2003 ACS

AN 2000:748525 CAPLUS

DN 134:290837

TI Modified method to detect PCR products by 5' nuclease activity and an asymmetric fluorogenic probe set

AU Koo, Kai; Jaykus, Lee-Ann

CS North Carolina State University, Raleigh, NC, 27695-7624, USA

SO BioTechniques (2000), 29(4), 690, 692, 694

CODEN: BTNQDO; ISSN: 0736-6205

PB Eaton Publishing Co.

DT Journal

LA English

AB PCR products are detected most commonly using postamplification agarose gel electrophoresis and/or DNA hybridization. The authors describe the detection of PCR products using 5' nuclease activity and asym. fluorogenic probe set. The method uses a long 5' fluorescein-labeled (reporter) oligonucleotide probe and a short 3' DABCYL-labeled (**quencher**) oligonucleotide. The protocol outlined in this work takes advantage of the fact that the synthesis cost of single labeling is lower than that for dual labeled probes.

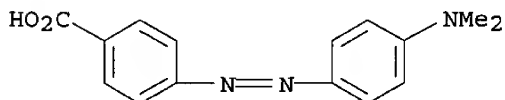
IT **6268-49-1D**, oligonucleotide probes labeled with

RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)

(modified method to detect PCR products by 5' nuclease activity and asym. fluorogenic probe set)

RN 6268-49-1 CAPLUS

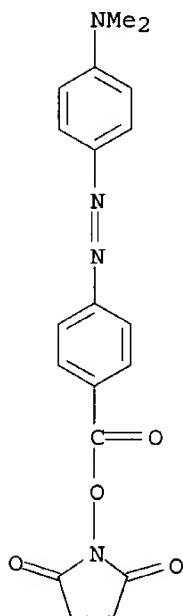
CN Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)



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RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

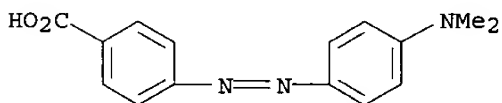
L5 ANSWER 47 OF 96 CAPLUS COPYRIGHT 2003 ACS
AN 2000:733749 CAPLUS
DN 134:29698
TI Solid-phase synthesis of doubly labeled peptide nucleic acids as probes
for the real-time detection of hybridization
AU Seitz, Oliver
CS Mol. Physiologie Abteilung Chem. Biol., Max-Planck-Inst., Dortmund, 44227,
Germany
SO Angewandte Chemie, International Edition (2000), 39(18), 3249-3252
CODEN: ACIEF5; ISSN: 1433-7851
PB Wiley-VCH Verlag GmbH
DT Journal
LA English
OS CASREACT 134:29698
AB A method for real-time DNA measurements was presented that takes advantage
of enzyme stable PNA structure. A PNA chain doubly labeled with a
fluorescence-donor and a fluorescence-**quencher** was prepd. using
solid-phase techniques; it showed weak fluorescence in the unbound
condition, but hybridization caused a structural reorganization, which
caused the probe to become fluorescent upon hybridization.
Target-unrelated arm sequences or spacers were not needed with the
labeling techniques used or to maintain the structural integrity of the
probe.
IT 146998-31-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(synthesis of doubly labeled peptide nucleic acids as probes for the
real-time detection of hybridization)
RN 146998-31-4 CAPLUS
CN 2,5-Pyrrolidinedione, 1-[[4-[[4-(dimethylamino)phenyl]azo]benzoyl]oxy]-
(9CI) (CA INDEX NAME)



RE.CNT 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 48 OF 96 CAPLUS COPYRIGHT 2003 ACS
 AN 2000:686153 CAPLUS
 DN 133:277140
 TI Real-time monitoring of amplification process by ribozyme-mediated cleavage of dual fluorophore-labeled probe
 IN Krupp, Guido
 PA Artus Gesellschaft fuer Molekularbiologische Diagnostik und Entwicklung m.b., Germany
 SO Ger. Offen., 40 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 FAN.CNT 1

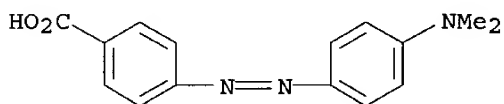
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19915141	A1	20000928	DE 1999-19915141	19990326
	DE 19915141	C2	20021121		
	WO 2000058505	A1	20001005	WO 1999-EP7127	19990927
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	AU 9959817	A1	20001016	AU 1999-59817	19990927
	EP 1165841	A1	20020102	EP 1999-973802	19990927
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
PRAI	DE 1999-19915141	A	19990326		
	WO 1999-EP7127	W	19990927		
AB	The title process for real-time monitoring of nucleic acid amplification comprises generation of a ribozyme-ribozyme substrate pair during nucleic acid amplification. One example of this approach consists of a primer contg. a sequence encoding a GAAA ribozyme motif and a probe contg. the CUGANGA ribozyme substrate motif, said probe being dually labeled with both reporter and a quencher fluorophores. Thus, amplification results in creation of a functional ribozyme which cleaves the substrate probe. The resulting increase in fluorescence provides a measure of the amplification reaction. This method was applied to the detection of HIV RNA.				
IT	6268-49-1D , conjugates with fluorophore-labeled probe RL: ARU (Analytical role, unclassified); BOC (Biological occurrence); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence) (DABCYL; real-time monitoring of amplification process by ribozyme-mediated cleavage of dual fluorophore-labeled probe)				
RN	6268-49-1 CAPLUS				
CN	Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)				



RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

09567863

L5 ANSWER 49 OF 96 CAPLUS COPYRIGHT 2003 ACS
AN 2000:661694 CAPLUS
DN 134:217713
TI Amplification with molecular beacon primers and reverse line blotting for the detection and typing of human papillomaviruses
AU Jordens, J. Z.; Lanham, S.; Pickett, M. A.; Amarasekara, S.; Abeywickrema, I.; Watt, P. J.
CS Department of Molecular Microbiology, University of Southampton, Southampton General Hospital, Southampton, SO16 6YD, UK
SO Journal of Virological Methods (2000), 89(1-2), 29-37
CODEN: JVMEDE; ISSN: 0166-0934
PB Elsevier Science B.V.
DT Journal
LA English
AB A novel method for the detection and typing of human papillomavirus (HPV) was developed using mol. beacon primers. The method is based on the use of HPV-specific primers contg. a hairpin loop structure in which fluorescent donor and **quencher** groups are held in close proximity such that fluorescence is quenched. Amplification of the target sequence results in the opening of the loop and the resulting fluorescence can be detected on a sequence detector system (SDS) 7700 (Applied Biosystems), as used for TaqMan assays. Fluorescent amplicons were identified on the SDS 7700 and then typed by a single hybridization with specific probes immobilized in lines on a nylon membrane and detected on a fluorescent scanner. This novel beacon primer method compared well with conventional PCR for cervical scrape specimens. The combination of the beacon primer method and reverse line blotting should enable large-scale population studies of HPV infection.
IT **6268-49-1**
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(amplification with mol. beacon primers and reverse line blotting for detection and typing of human papillomaviruses)
RN 6268-49-1 CAPLUS
CN Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)

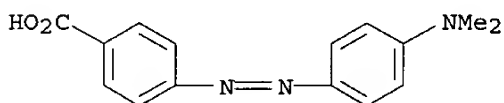


RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 50 OF 96 CAPLUS COPYRIGHT 2003 ACS
AN 2000:639143 CAPLUS
DN 133:233551
TI Hairpin-forming primers with molecular energy transfer labels and nucleic acid amplification methods based thereon
IN Nazarenko, Irina A.; Bhatnagar, Satish K.; Winn-deen, Emily S.; Hohman, Robert J.
PA Intergen Company, USA
SO U.S., 83 pp., Cont.-in-part of U.S. 5,866,336.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 4

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI US 6117635 A 20000912 US 1997-837034 19970411
 US 5866336 A 19990202 US 1997-778487 19970103
 US 6090552 A 20000718 US 1997-891516 19970711
 CA 2260973 AA 19980122 CA 1997-2260973 19970715
 WO 9802449 A1 19980122 WO 1997-US12315 19970715
 W: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, GH,
 HU, IL, IS, JP, KG, KP, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK,
 MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, SL, TJ, TM, TR, TT, UA,
 UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
 RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR,
 GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA,
 GN, ML, MR, NE, SN, TD, TG
 AU 9737285 A1 19980209 AU 1997-37285 19970715
 EP 912597 A1 19990506 EP 1997-934163 19970715
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, FI
 JP 2001513623 T2 20010904 JP 1998-506248 19970715
 PRAI US 1996-683667 B2 19960716
 US 1997-778487 A2 19970103
 US 1997-837034 A2 19970411
 WO 1997-US12315 W 19970715
 AB Hairpin-forming nucleic acid amplification primers labeled with donor and
 acceptor moieties of mol. energy transfer pairs are disclosed. The
 moieties can be fluorophores, such that fluorescent energy emitted by the
 donor is absorbed by the acceptor. The acceptor may be a fluorophore that
 fluoresces at a wavelength different from the donor moiety, or it may be a
quencher. The invention also provides methods and kits for
 directly detecting amplification products employing the nucleic acid
 amplification primers. Using these primers, there is no need for sepn. of
 unincorporated primers. This "closed-tube" format greatly reduces the
 possibility of carryover contamination with amplification products,
 provides for high throughput of samples, and may be totally automated.
 Thus, hairpin-forming primers labeled with both fluorescein and DABCYL
 were used in a no. of expts., i.e., detection of PCR amplified
 prostate-specific antigen cDNA, anal. of methylation status of CpG
 islands, detection of Chlamydia genomic DNA and P16 gene, in a TRAP
 (telomeric repeat amplification protocol) assay for detection of
 telomerase-pos. cells, in an ARMS (amplification refractory mutation
 system) assay to detect a mutation in the .beta.-3-adrenergic receptor
 gene, and in an in situ PCR assay for the gag region of HIV-1.
 IT **6268-49-1D**, doubly-labeled primers contg.
 RL: ARU (Analytical role, unclassified); BOC (Biological occurrence); BSU
 (Biological study, unclassified); ANST (Analytical study); BIOL
 (Biological study); OCCU (Occurrence)
 (hairpin-forming primers with mol. energy transfer labels and nucleic
 acid amplification methods based thereon)
 RN 6268-49-1 CAPLUS
 CN Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)



RE.CNT 94 THERE ARE 94 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 51 OF 96 CAPLUS COPYRIGHT 2003 ACS
 AN 2000:635489 CAPLUS
 DN 133:318855

09567863

TI Using molecular beacons as a sensitive fluorescence assay for enzymatic cleavage for single-stranded DNA

AU Li, Jianwei Jeffery; Geyer, Ron; Tan, Weihong

CS Department of Chemistry and University of Florida Brain Institute, University of Florida, Gainesville, FL, 32611, USA

SO Nucleic Acids Research (2000), 28(11), e52, ii-v
CODEN: NARHAD; ISSN: 0305-1048

PB Oxford University Press

DT Journal

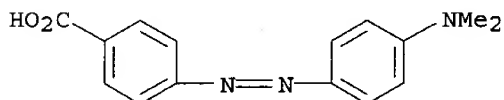
LA English

AB Traditional methods to assay enzymic cleavage of DNA are discontinuous and time consuming. In contrast, recently developed fluorescence methods are continuous and convenient. However, no fluorescence method has been developed for single-stranded NA digestion. Here the authors introduce a novel method, based on mol. beacons, to assay single-stranded DNA cleavage by single strand-specific nucleases. A mol. beacon, a hairpin-shaped DNA probe labeled with a fluorophore and a **quencher**, is used as the substrate and enzymic cleavage leads to fluorescence enhancement in the mol. beacon. This method permits real time detection of DNA cleavage and makes it easy to characterize the activity of DNA nucleases and to study the steady-state cleavage reaction kinetics. The excellent sensitivity, reproducibility and convenience will enable mol. beacons to be widely useful for the study of single-stranded DNA cleaving reactions.

IT **6268-49-1**
RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(mol. beacons as a sensitive fluorescence assay for enzymic cleavage for single-stranded DNA)

RN 6268-49-1 CAPLUS

CN Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)



RE.CNT 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 52 OF 96 CAPLUS COPYRIGHT 2003 ACS

AN 2000:564484 CAPLUS

DN 134:66807

TI 'Cyclicons' as hybridization-based fluorescent primer-probes: synthesis, properties and application in real-time PCR

AU Kandimalla, E. R.; Agrawal, S.

CS Hybridon, Inc., Milford, MA, 01757, USA

SO Bioorganic & Medicinal Chemistry (2000), 8(8), 1911-1916
CODEN: BMECEP; ISSN: 0968-0896

PB Elsevier Science Ltd.

DT Journal

LA English

AB The authors have studied the use of 'pseudocyclic oligonucleotides' (PCOs) (Jiang et al. Bioorg. Med. Chem. 1999, 7, 2727) as hybridization-based fluorescent probes. The resulting fluorescent tag-attached PCOs are called 'cyclicons'. Cyclicons consist of two oligonucleotides linked to each other through 3'-3' or 5'-5' ends. One of the oligos is the probe or primer-probe sequence that is complementary to a target nucleic acid (mRNA/DNA), and the other is a modifier oligo that is complementary to one of the ends of the probe oligo. A fluorescence mol. and a **quencher** mol. are attached at an appropriate position in the

cyclicons. In the absence of the target nucleic acid, the fluorophore and the **quencher** are brought in close proximity to each other because of the formation of an intramol. cyclic structure, resulting in fluorescence quenching. When the cyclicon hybridizes to the complementary target nucleic acid strand, the intramol. cyclic structure of the cyclicon is destabilized and opened up, sepg. the fluorophore and **quencher** groups, resulting in spontaneous fluorescence emission. Fluorescent studies in the presence and absence of a target nucleic acid suggest that cyclicons exist in intramol. cyclic structure form in the absence of the target and form the duplex with the target sequence when present. Both the cyclicons are useful for nucleic acid detection. The studies with DNA polymerase on 5'-5'-attached cyclicons suggest that the presence of **quencher** moiety in the probe sequence does not inhibit chain elongation by polymerase. The expts. with a 5'-5'-attached cyclicon suggest the new design serves as an efficient unimol. primer-probe in real-time PCR expts.

IT 316121-62-7 316121-63-8D, conjugates with CPG

RL: RCT (Reactant); RACT (Reactant or reagent)

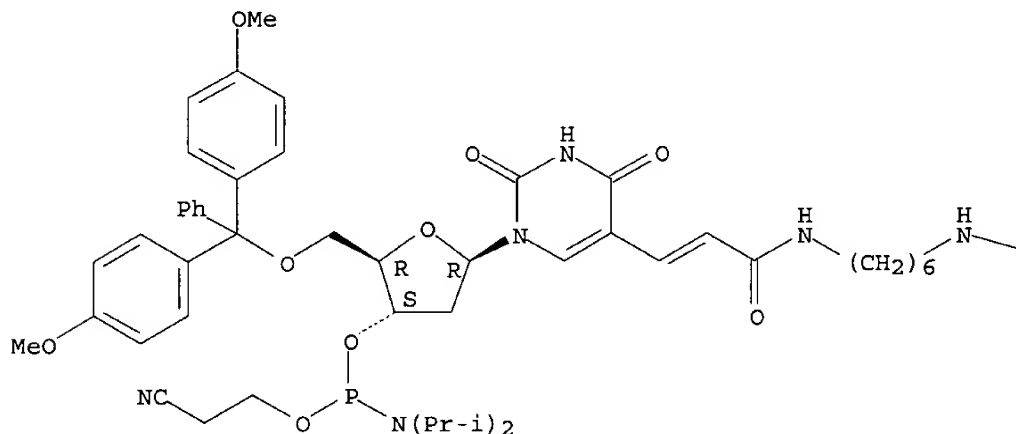
('Cyclicons' as hybridization-based fluorescent primer-probes: synthesis, properties and application in real-time PCR)

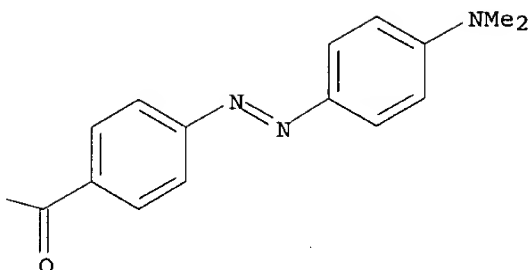
RN 316121-62-7 CAPLUS

CN Uridine, 5'-[bis(4-methoxyphenyl)phenylmethyl]-2'-deoxy-5-[3-[[6-[[4-[[4-(dimethylamino)phenyl]azo]benzoyl]amino]hexyl]amino]-3-oxo-1-propenyl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

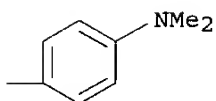
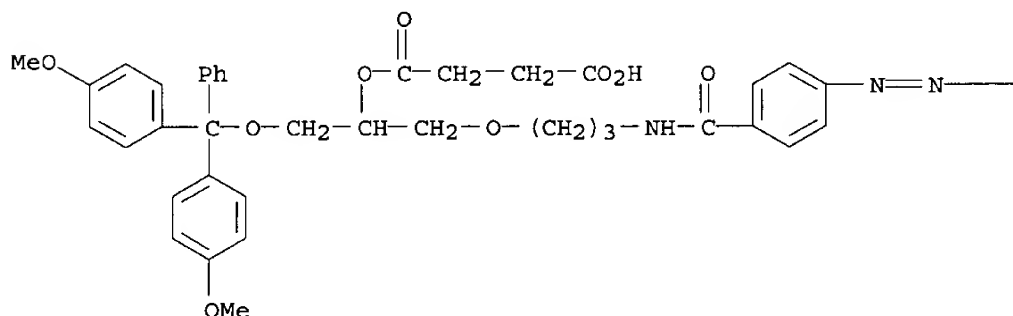
PAGE 1-A





RN 316121-63-8 CAPLUS

CN Butanedioic acid, mono[2-[bis(4-methoxyphenyl)phenylmethoxy]-1-[[3-[[4-[[4-(dimethylamino)phenyl]azo]benzoyl]amino]propoxy]methyl]ethyl] ester (9CI)
(CA INDEX NAME)



RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 53 OF 96 CAPLUS COPYRIGHT 2003 ACS

AN 2000:492037 CAPLUS

DN 133:115875

TI Nucleic acid amplification oligonucleotides with molecular energy transfer
labels and methods based thereon

IN Nazarenko, Irina A.; Bhatnagar, Satish K.; Winn-Deen, Emily S.; Hohman,
Robert J.

PA InterGen Company, USA

SO U.S., 98 pp., Cont.-in-part of U.S. Ser. No. 837,034.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 4

PATENT NO.

KIND

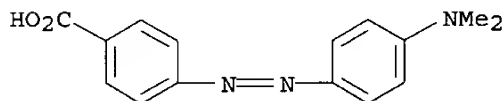
DATE

APPLICATION NO.

DATE

09567863

PI US 6090552 A 20000718 US 1997-891516 19970711
 US 5866336 A 19990202 US 1997-778487 19970103
 US 6117635 A 20000912 US 1997-837034 19970411
 PRAI US 1996-683667 B2 19960716
 US 1997-778487 A2 19970103
 US 1997-837034 A2 19970411
 AB The present invention provides labeled nucleic acid amplification oligonucleotides, which can be linear or hairpin primers or blocking oligonucleotides. The oligonucleotides of the invention are labeled with donor and/or acceptor moieties of mol. energy transfer pairs. The moieties can be fluorophores, such that fluorescent energy emitted by the donor is absorbed by the acceptor. The acceptor may be a fluorophore that fluoresces at a wavelength different from the donor moiety, or it may be a **quencher**. The oligonucleotides of the invention are configured so that a donor moiety and an acceptor moiety are incorporated into the amplification product. The invention also provides methods and kits for directly detecting amplification products employing the nucleic acid amplification primers. When labeled linear primers are used, treatment with exonuclease or by using specific temp. eliminates the need for sepn. of unincorporated primers. This "closed-tube" format greatly reduces the possibility of carryover contamination with amplification products, provides for high throughput of samples, and may be totally automated.
 IT **6268-49-1**
 RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses) (nucleic acid amplification oligonucleotides with mol. energy transfer labels and methods based thereon)
 RN 6268-49-1 CAPLUS
 CN Benzoic acid, 4-[[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)



RE.CNT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 54 OF 96 CAPLUS COPYRIGHT 2003 ACS
 AN 2000:421344 CAPLUS
 DN 133:55658
 TI A heterogeneous assay for pyrophosphate detection using fluorescent nucleotide triphosphate probes
 IN Williams, John G. K.
 PA Li-Cor, Inc., USA
 SO PCT Int. Appl., 45 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000036151	A1	20000622	WO 1999-US29584	19991213
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,				

CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 6232075 B1 20010515 US 1999-460304 19991213
 US 6255083 B1 20010703 US 1999-460303 19991213
 US 2001018184 A1 20010830 US 2001-816720 20010321
 US 2002115076 A1 20020822 US 2001-859104 20010514

PRAI US 1998-112078P P 19981214
 US 1999-115496P P 19990111
 US 1999-460303 A3 19991213
 US 1999-460304 A1 19991213

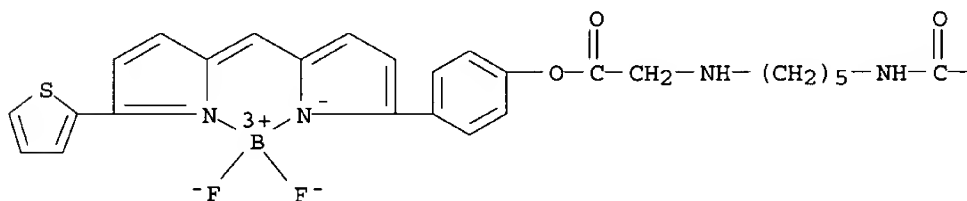
AB Nucleotide triphosphate (NTP) probes contg. a fluorophore attached to the .gamma.-phosphate and a **quencher** moiety sufficiently proximal to the fluorophore moiety for use in pyrophosphate detection assays are disclosed. These probes exhibit distinguishable fluorescence characteristics when the fluorophore is attached to the nucleotide through the .gamma.-phosphate and when it is unattached to the nucleotide. The present invention also provides kits and integrated systems/methods for practicing the assays described herein. The method is based on incorporation of the NTP into a nucleic acid primer strand using polymerase immobilized on a solid support, thereby releasing the fluorescent probe. A change in fluorescence characteristics is detected through either fluorescent intensity or lifetime measurement.

IT **277756-37-3**
 RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses) (NTP probe; a heterogeneous assay for pyrophosphate detection using fluorescent nucleotide triphosphate probes)

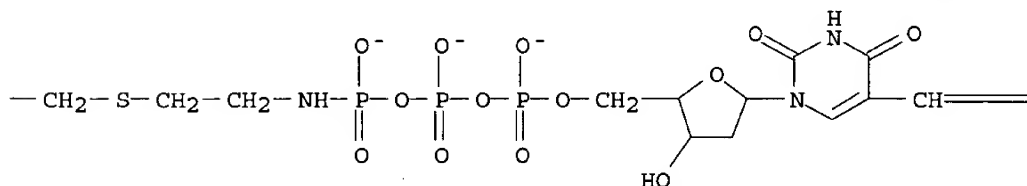
RN 277756-37-3 CAPLUS

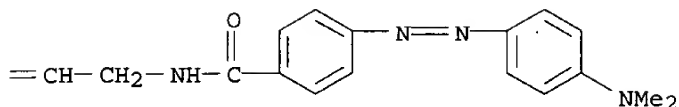
CN Borate(3-), difluoro[5-[(1E)-3-[[4-[(1E)-[4-(dimethylamino)phenyl]azo]benzoyl]amino]-1-propenyl]uridine 5'-(diphosphate) P'-anhydride with [2-[[2-oxo-2-[[5-[[2-oxo-2-[4-[5-[[5-(2-thienyl)-2H-pyrrol-2-ylidene-.kappa.N]methyl]-1H-pyrrol-2-yl-.kappa.N]phenoxy]ethyl]amino]pentyl]amino]ethyl]thio]ethyl]phosphoramidato(4-)]-, trihydrogen, (T-4)- (9CI) (CA INDEX NAME)

PAGE 1-A

● 3 H⁺

PAGE 1-B



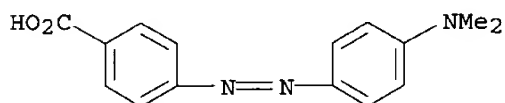


IT 6268-49-1

RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
 (quencher; a heterogeneous assay for pyrophosphate detection
 using fluorescent nucleotide triphosphate probes)

RN 6268-49-1 CAPLUS

CN Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)



RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 55 OF 96 CAPLUS COPYRIGHT 2003 ACS

AN 2000:333894 CAPLUS

DN 133:130412

TI Molecular beacon biosensors for DNA/RNA analysis

AU Fang, Xiaohong; Schuster, Sheldon; Liu, Xiaojing; Correll, Tiffany; Zhang, Peng; Tapeç, Ruby; Santra, Swadeshmukul; Qhobosheanne, Monde; Lou, Jane Hua; Tan, Weihong

CS UF Brain Institute, Dep. Chem., Univ. Florida, Gainesville, FL, USA

SO Proceedings of SPIE-The International Society for Optical Engineering
 (2000), 3926(Advances in Nucleic Acid and Protein Analyses, Manipulation,
 and Sequencing), 2-8

CODEN: PSISDG; ISSN: 0277-786X

PB SPIE-The International Society for Optical Engineering

DT Journal

LA English

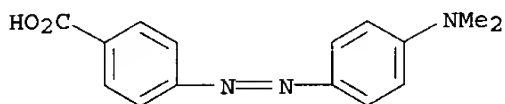
AB We have developed a variety of novel DNA biosensors using a new class of oligonucleotide probe, mol. beacon (MB). MB has the fluorescence signal transduction mechanism built within the mols. It can report the presence of specific nucleic acids with high sensitivity and excellent selectivity. Biotinylated MBs have been designed and synthesized for immobilization onto silica surface through avidin-biotin binding. The effect of the avidin-biotin bridge on the MB hybridization has been studied. Our result shows that using streptavidin has less effect than using avidin in MB hybridization. Two kinds of fiber optical DNA sensors have been prep. and characterized: a fiber optic evanescent wave sensor and a submicrometer optical fiber sensor. The sensors are rapid, stable, highly selective, reproducible and regenerable. They have been applied to detect specific DNA and mRNA sequences and to the study of the DNA hybridization kinetics. Silica nanoparticles have also been used for MB immobilization in order to prep. a large quantity of nanometer sized DNA/RNA biosensors.

IT 6268-49-1D, mol. beacons contg.

RL: ARG (Analytical reagent use); DEV (Device component use); ANST
 (Analytical study); USES (Uses)
 (quencher; mol. beacon biosensors for DNA/RNA anal.)

09567863

RN 6268-49-1 CAPLUS
CN Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)



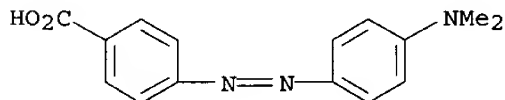
RE.CNT 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 56 OF 96 CAPLUS COPYRIGHT 2003 ACS
AN 2000:98835 CAPLUS
DN 132:147589
TI Wavelength-shifting probes and primers
IN Tyagi, Sanjay; Kramer, Fred R.; Marras, Salvatore A. E.
PA The Public Health Research Institute of the City of New York, Inc., USA
SO PCT Int. Appl., 59 pp.
CODEN: PIXXD2

DT Patent
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000006778	A1	20000210	WO 1999-US17145	19990728
	W: AU, CA, JP RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 6037130	A	20000314	US 1998-123764	19980728
	CA 2336489	AA	20000210	CA 1999-2336489	19990728
	AU 9952402	A1	20000221	AU 1999-52402	19990728
	EP 1100971	A1	20010523	EP 1999-937602	19990728
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	JP 2002521069	T2	20020716	JP 2000-562560	19990728
PRAI	US 1998-123764	A	19980728		
	WO 1999-US17145	W	19990728		
AB	Hairpin-forming oligonucleotide probes and primers are triple-labeled with a pair of fluorophores, a shorter wavelength harvester, a longer wavelength emitter, and a quencher . When the probes and primers are stimulated by light that excites the harvester, opening causes an increase in fluorescence by the emitter, while fluorescence from the harvester is continually suppressed. The probes and primers may be used for detection of nucleic acid targets in assays, including amplification assays. Assay kits are provided. The method was demonstrated with probes/primers contg. DABSYL as quencher , fluorescein as harvester, and tetramethylrhodamine as emitter.				
IT	6268-49-1				
	RL: ARU (Analytical role, unclassified); ANST (Analytical study) (oligonucleotides labeled with TMR, fluorescein and; wavelength-shifting probes and primers)				
RN	6268-49-1 CAPLUS				
CN	Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)				

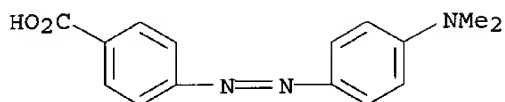


09567863

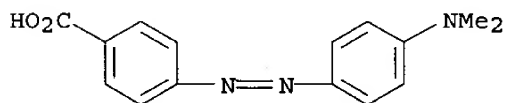
RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 57 OF 96 CAPLUS COPYRIGHT 2003 ACS
AN 2000:35004 CAPLUS
DN 132:89218
TI Molecular torches for detection of target nucleic acids by hybridization
IN Becker, Michael M.; Schroth, Gary
PA Gen-Probe Incorporated, USA
SO PCT Int. Appl., 58 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000001850	A2	20000113	WO 1999-US15098	19990701
	WO 2000001850	A3	20000406		
	W: AU, CA, JP, KR, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, IT, LU, NL, SE				
	CA 2333253	AA	20000113	CA 1999-2333253	19990701
	AU 9948575	A1	20000124	AU 1999-48575	19990701
	EP 1092047	A2	20010418	EP 1999-932220	19990701
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	US 6361945	B1	20020326	US 1999-346551	19990701
	JP 2002519073	T2	20020702	JP 2000-558240	19990701
	US 2002090633	A1	20020711	US 2001-1344	20011031
PRAI	US 1998-91616P	P	19980702		
	US 1999-346551	A1	19990701		
	WO 1999-US15098	W	19990701		
AB	<p>The present invention features "mol. torches" and the use of mol. torches for detecting the presence of a target nucleic acid sequence. Mol. torches contain a target binding domain, a target closing domain, and a joining region. The target binding domain is biased towards the target sequence such that the target binding domain forms a more stable hybrid with the target sequence than with the target closing domain under the same hybridization conditions. The joining region facilitates the formation or maintenance of a closed torch. Thus, a 39-nucleotide mol. torch was prepd. and shown to bind the target RNA at room temp. The torch consisted of a 5'-fluorescein fluorophore, a cggc clamp region which binds to a portion of the target closing domain, a 17-nucleotide target binding domain, a ttttt joining region, a 13-nucleotide target closing domain, and a 3'-DABCYL quencher. A portion of the target binding domain remained unbound to the target closing domain to facilitate strand displacement of the target closing domain by the target RNA. Binding of the target is assocd. with increased fluorescence. The amt. of target which bound to the torch increased with amt. of target sequence present, indicating that such mol. torches may be useful for quantifying the amt. of target present in a sample.</p>				
IT	<p>6268-49-1D, conjugate with fluorescein-labeled RNA-DNA chimera RL: ARG (Analytical reagent use); PEP (Physical, engineering or chemical process); PRP (Properties); ANST (Analytical study); PROC (Process); USES (Uses) (mol. torches for detection of target nucleic acids by hybridization)</p>				
RN	6268-49-1 CAPLUS				
CN	Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)				



L5 ANSWER 58 OF 96 CAPLUS COPYRIGHT 2003 ACS
 AN 1999:799932 CAPLUS
 DN 132:217606
 TI Real-Time, Sequence-Specific Detection of Nucleic Acids during Strand Displacement Amplification
 AU Nadeau, James G.; Pitner, J. Bruce; Linn, C. Preston; Schram, James L.; Dean, Cheryl H.; Nycz, Colleen M.
 CS Department of Life Sciences, Becton Dickinson Technologies, Research Triangle Park, NC, 27709, USA
 SO Analytical Biochemistry (1999), 276(2), 177-187
 CODEN: ANBCA2; ISSN: 0003-2697
 PB Academic Press
 DT Journal
 LA English
 AB Strand displacement amplification (SDA) is an isothermal nucleic acid amplification method based on the primer-directed nicking activity of a restriction enzyme and the strand displacement activity of an exonuclease-deficient polymerase. Here the authors describe fluorogenic reporter probes that permit real-time, sequence-specific detection of targets amplified during SDA. The new probes possess the single-strand half of a BsoBI recognition sequence flanked on opposite sides by a fluorophore and a **quencher**. The probes also contain target-binding sequences located 3' to the BsoBI site. Fluorophore and **quencher** are maintained in sufficiently close proximity that fluorescence is quenched in the intact single-stranded probe. If target is present during SDA, the probe is converted into a fully double-stranded form and is cleaved by the restriction enzyme BsoBI, which also serves as the nicking agent for SDA. Fluorophore and **quencher** diffuse apart upon probe cleavage, causing increased fluorescence. Target replication may thus be followed in real time during the SDA reaction. Probe performance may be enhanced by embedding the fluorogenic BsoBI site within the loop of a folded hairpin structure. The new probe designs permit detection of as few as 10 target copies within 30 min in a closed-tube, real-time format, eliminating the possibility of carry-over contamination. The probes may be used to detect RNA targets in SDA mixts. contg. reverse transcriptase. Furthermore, a two-color competitive SDA format permits accurate quantification of target levels from the real-time fluorescence data. (c) 1999 Academic Press.
 IT 6268-49-1D, oligonucleotide conjugates
 RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
 (real-time, sequence-specific detection of nucleic acids during strand displacement amplification using probes contg. fluorogenic BsoBI sites)
 RN 6268-49-1 CAPLUS
 CN Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)



RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 59 OF 96 CAPLUS COPYRIGHT 2003 ACS

AN 1999:795825 CAPLUS

DN 132:45781

TI Multi-fluorescent hairpin energy transfer oligonucleotides and their use in nucleic acid analysis

IN Nardone, Glenn

PA Intergen Co., USA

SO PCT Int. Appl., 35 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 2

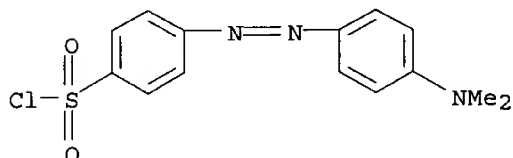
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9964432	A2	19991216	WO 1999-US12799	19990611
	WO 9964432	A3	20000224		
	W: CA, JP, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	AU 9945522	A1	19991230	AU 1999-45522	19990608
	CA 2335026	AA	19991216	CA 1999-2335026	19990611
	EP 1086245	A2	20010328	EP 1999-928465	19990611
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	JP 2002517506	T2	20020618	JP 2000-553440	19990611
PRAI	US 1998-89119P	P	19980612		
	US 1998-88802P	P	19980610		
	WO 1999-US12799	W	19990608		
AB	<p>An oligonucleotide, labeled with a mol. energy transfer trio and contg. two sequences capable of hairpin formation, is used in the detection of two targets by irradiation with a single wavelength of light. One of the two sequences contains an energy donor and a first energy acceptor, and the other sequence contains a second energy acceptor. The donor is in close proximity to the second acceptor only if the hairpin is formed, while the donor is always in close proximity to first acceptor. A sample is assayed, using this oligonucleotide in conjunction with another oligonucleotide which contains the donor fluorophore and the quencher, arranged as described above, but which lacks the acceptor fluorophore. The present oligonucleotide and the other oligonucleotide are specific to first and second targets, resp. If a sample contains the first and second targets, then hairpin formation is prevented after each oligonucleotide is incorporated into a target amplification product or hybridized to a target. Subsequent irradiation of the sample with the single wavelength of light which excites the donor fluorophore, but not the acceptor fluorophore, causes two distinctive signals to be generated. The first signal is emitted by the second fluorophore of the present oligonucleotide, while the second signal is emitted by the first fluorophore of the other oligonucleotide. Thus, the first and second targets are detected when one observes the first and second signals, resp. Thus, a sample was assayed for the presence of prostate-specific antigen mRNA. As a control, a quantity of glyceraldehyde-3-phosphate dehydrogenase cDNA was added. A 43-nucleotide hairpin-forming oligonucleotide labeled with fluorescein at position 1, TAMRA at position 5 or 10, and DABSYL at position 22 was used as a PCR primer for the dehydrogenase. A 40-nucleotide hairpin-forming primer labeled with fluorescein at position 1 and DABSYL at position 22 was used for PSA. Dehydrogenase cDNA amplification was followed directly by observing emission of light of 580 nm (TAMRA emission) while progress of PSA cDNA amplification was followed at 530 nm (fluorescein emission).</p>				
IT	<p>56512-49-3DP, DABSYL chloride, oligonucleotides labeled with ROX, fluorescein and</p>				

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RL: ARG (Analytical reagent use); BPR (Biological process); BSU (Biological study, unclassified); SPN (Synthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(multi-fluorescent hairpin energy transfer oligonucleotides and their use in nucleic acid anal.)

RN 56512-49-3 CAPLUS

CN Benzenesulfonyl chloride, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)



L5 ANSWER 60 OF 96 CAPLUS COPYRIGHT 2003 ACS

AN 1999:795824 CAPLUS

DN 132:31739

TI Purines and pyrimidines linked to a **quencher** and oligonucleotides containing these analogs for use in nucleic acid analysis

IN Nardone, Glenn; Nazarenko, Irena; Boal, Jila

PA InterGen Company, USA

SO PCT Int. Appl., 38 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	WO 9964431	A2	19991216	WO 1999-US13107	19990610
	WO 9964431	A3	20000615		
	W: CA, JP, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 6117986	A	20000912	US 1998-95014	19980610
	CA 2334610	AA	19991216	CA 1999-2334610	19990610
	EP 1086115	A2	20010328	EP 1999-930200	19990610
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	JP 2002517505	T2	20020618	JP 2000-553439	19990610
PRAI	US 1998-95014	A2	19980610		
	WO 1999-US13107	W	19990610		

OS MARPAT 132:31739

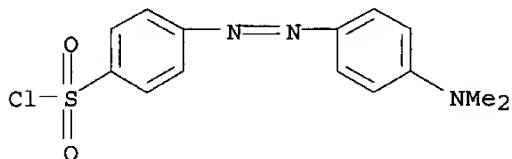
AB Comps. are described comprising purines substituted at the C-8 position and pyrimidines substituted at the C-4 or C-5 position with a linker and **quencher**. These comps. when incorporated into hairpin oligonucleotides quench the fluorescence of fluorophores linked to the 5'-terminus of the oligonucleotide. These nucleotide-**quencher** comps. are also easy to incorporate into oligonucleotides using conventional, automated, oligonucleotide synthetic techniques. Thus, a hairpin, energy-transfer PCR primer contg. a 5'-terminal fluoresein and a DABSYL deriv. of deoxyuridine was prepd. and used in detection of HIV-1. The synthesis of the DABSYL-dU deriv. as well as DABSYL derivs. of dC and dA are described.

IT 56512-49-3, DABSYL chloride

RL: RCT (Reactant); RACT (Reactant or reagent)
(purines and pyrimidines linked to **quencher** and

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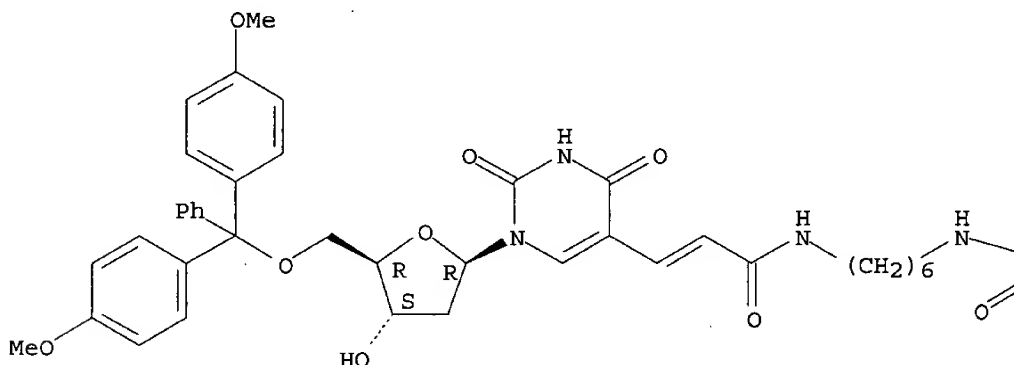
oligonucleotides contg. these analogs for use in nucleic acid anal.)
RN 56512-49-3 CAPLUS
CN Benzenesulfonyl chloride, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)



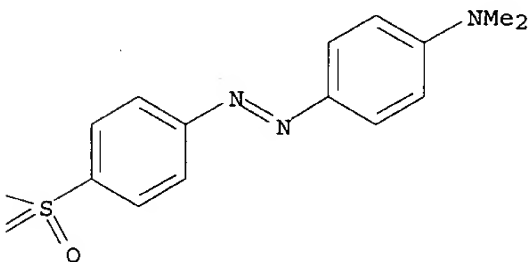
IT 252337-61-4P 252337-62-5P 252337-63-6P
252337-64-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(purines and pyrimidines linked to **quencher** and
oligonucleotides contg. these analogs for use in nucleic acid anal.)
RN 252337-61-4 CAPLUS
CN Uridine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-deoxy-5-[3-[[6-[[[4-
[[4-(dimethylamino)phenyl]azo]phenyl]sulfonyl]amino]hexyl]amino]-3-oxo-1-
propenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A



PAGE 1-B



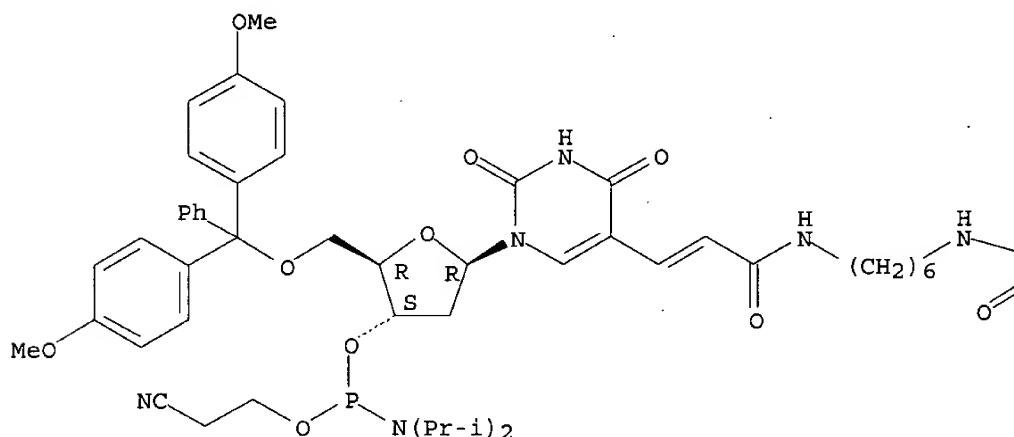
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RN 252337-62-5 CAPLUS

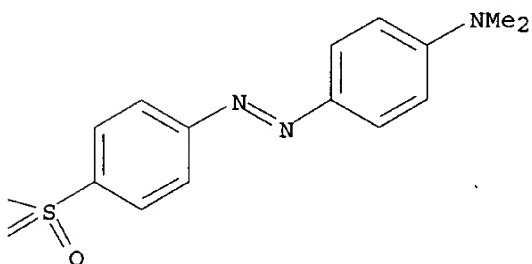
CN Uridine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-deoxy-5-[3-[[6-[[[4-[[4-(dimethylamino)phenyl]azo]phenyl]sulfonyl]amino]hexyl]amino]-3-oxo-1-propenyl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A



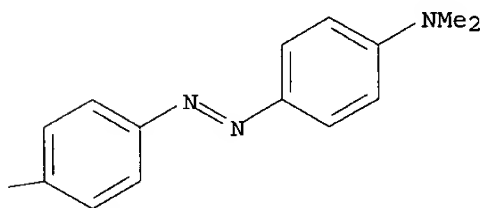
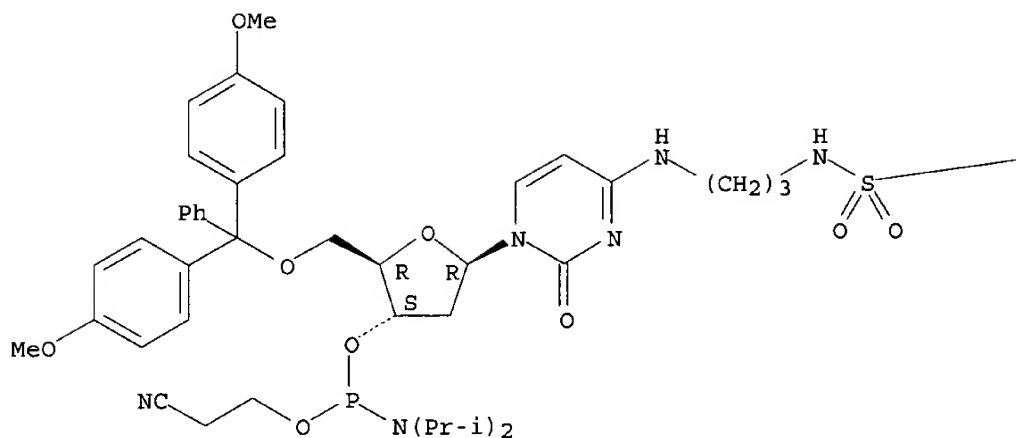
PAGE 1-B



RN 252337-63-6 CAPLUS

CN Cytidine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-deoxy-N-[3-[[[4-[[4-(dimethylamino)phenyl]azo]phenyl]sulfonyl]amino]propyl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

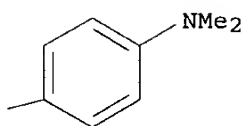
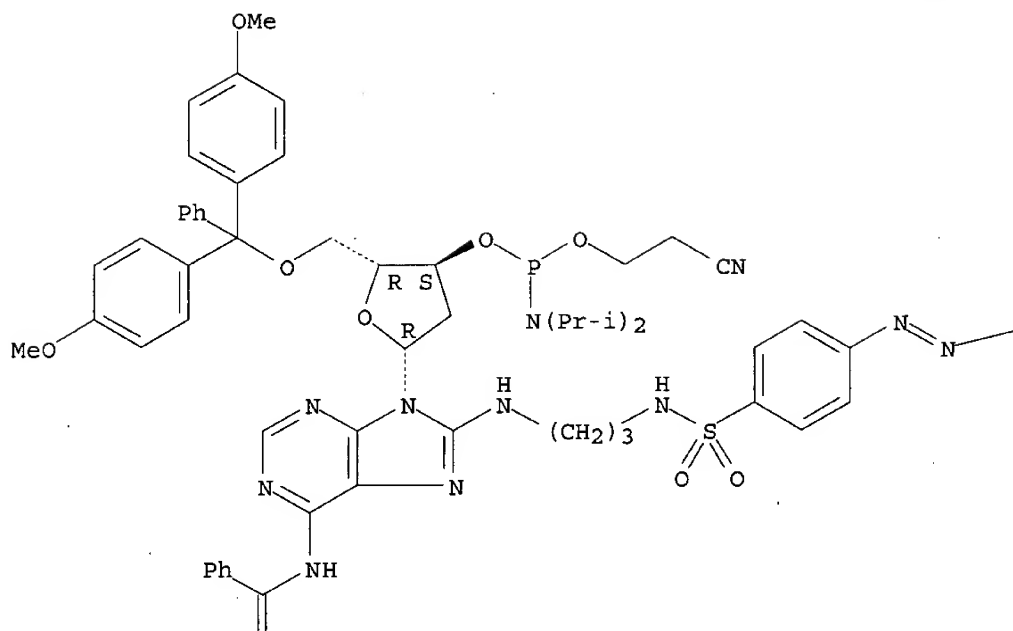


RN 252337-64-7 CAPLUS

CN Adenosine, N-benzoyl-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-deoxy-8-
[[3-[[[4-[[4-(dimethylamino)phenyl]azo]phenyl]sulfonyl]amino]propyl]amino]-
, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX
NAME)

Absolute stereochemistry.

Double bond geometry unknown.

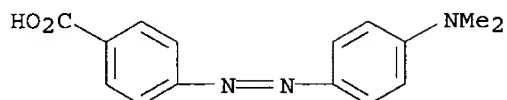


L5 ANSWER 61 OF 96 CAPLUS COPYRIGHT 2003 ACS
 AN 1999:784287 CAPLUS
 DN 132:31727
 TI PCR techniques for detecting microbial and viral contaminants in foodstuffs
 IN Romick, Thomas L.; Fraser, Mark S.
 PA Hunt-Wesson, Inc., USA
 SO PCT Int. Appl., 64 pp.
 CODEN: PIXXD2

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DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9963112	A2	19991209	WO 1999-US10940	19990518
	WO 9963112	A3	20000316		
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	US 6468743	B1	20021022	US 1999-313221	19990517
	AU 9940012	A1	19991220	AU 1999-40012	19990518
	EP 1080224	A2	20010307	EP 1999-923185	19990518
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
PRAI	US 1998-86025P	P	19980518		
	WO 1999-US10940	W	19990518		
AB	<p>A method of detecting the presence of living or dead microorganisms and viruses in a sample comprises adding to a predetd. vol. of a sample comprising nucleic acid-contg. microbe(s) and/or virus(es), known amts. of a pair of primers binding to sequences upstream and downstream to a universal or specific microbial and/or viral nucleic acid sequence and polymerase chain reaction (PCR) reagents, cycling the mixt. to amplify the universal or specific microbial and/or viral nucleic acid sequence; adding a polynucleotide comprising a DNA internal segment that is hybridizably complementary to at least a portion of the universal or specific nucleic acid sequence; and a first and a second DNA arm segment adjoining the DNA internal segment, the first DNA arm segment ending in a 5' terminus and the second DNA arm segment ending in a 3' terminus, the arms segments comprising nucleotide sequences such that they are hybridizably complementary to one another. As a result of hybridization probes change conformation. Enzymes for degrading double stranded nucleotide products are also included. PCR products are sepd. by electrophoresis. PCR cycling is conducted about 1 to 30 times at alternating temps. of about 95 to about 58 degrees celcius: about 58 to about 74 degrees celcius or 74:95degrees celcius. Beacon fluorescent technologies are also used where fluorescent probes comprise a fluor, a fluorophore or fluorogen and a quencher agent. Fluorogens may include pico green, fluorescein and edans. Examples of specific target sequences are presented in a convenient table format. A detailed prepn. of CODE 23 S-B'-fluorescein beacon is described which includes generation of a dabcytl deriv. Edans beacon was also generated where deprotected sulfhydryl groups are reacted with 1,5-IAEDANS (5-(((2-iodoacetyl)amino)ethyl)amino)naphthalene-1 sulfonic acid).</p>				
IT	<p>6268-49-1 RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); RCT (Reactant); ANST (Analytical study); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses) (generation of beacon as deriv. of dabcytl as quencher; PCR techniques for detecting microbial and viral contaminants in foodstuffs)</p>				
RN	6268-49-1 CAPLUS				
CN	Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)				



L5 ANSWER 62 OF 96 CAPLUS COPYRIGHT 2003 ACS

AN 1999:626412 CAPLUS

DN 131:253322

TI Methods, kits and compositions pertaining to detection complexes for nucleic acid targets

IN Coull, James D.; Gildea, Brian D.; Hyldig-Nielsen, Jens J.

PA Boston Probes, Inc., USA

SO PCT Int. Appl., 123 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9949293	A2	19990930	WO 1999-US6422	19990324
	WO 9949293	A3	20000406		
	W:	AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, HU, IL, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, TJ, TR, UA, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	AU 9930125	A1	19991018	AU 1999-30125	19990324
	EP 1064399	A2	20010103	EP 1999-911496	19990324
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI			
	JP 2002507434	T2	20020312	JP 2000-538214	19990324
	US 6361942	B1	20020326	US 1999-275848	19990324
PRAI	US 1998-79211P	P	19980324		
	WO 1999-US6422	W	19990324		
AB	<p>This invention is directed to methods, kits and compns. which utilize Detection Complexes to detect or identify the presence, absence or quantity of a target mol. in sample of interest. A Detection Complex comprises at least two component polymers and at least one set of donor and acceptor moieties. To each of at least two component polymers is linked at least one moiety of a set of donor and acceptor moieties, such that formation of the complex facilitates transfer of energy between donor and acceptor moieties of each set in a manner which, in an assay, produces changes in detectable signal which can be correlated with the presence/absence of quantity of target sequence and/or target mol. of interest in the sample. The Detection Complexes and PCR detection Complexes of this invention are primarily designed to dissociate as a direct or indirect consequence of the hybridization of one or more segments of a component polymer to a target sequence of a target mol. Because the component polymers of a Detection Complex will preferably dissociate, the attached donor and acceptor moieties, which are independently attached to different polymers, can become far more separated in space as compared with unimolecular. Beacon probes such as Molecular Beacons or Linear Beacons. As a consequence, the efficiency of energy transfer will be far more substantially altered as compared with unimolecular probes wherein the donor and acceptor moieties are linked to the same polymer and therefore cannot be infinitely separated in space. Thus, the Detection Complexes and PCR Detection Complexes of this invention possess a substantial comparative advantage over unimolecular. Beacon probes. In still another embodiment, this</p>				

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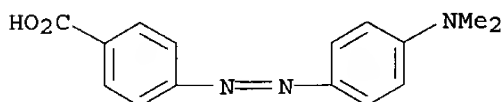
invention is directed to Substrate Detection Complexes which operate as a substrate for an enzyme to thereby generate changes in detectable signal in a target independent manner. At least one of the component polymers comprises a peptide nucleic acid (PNA), and the donor and acceptor moieties comprise a fluorophore (e.g., fluorescein) and a **quencher** (e.g., DABCYL), resp., for fluorescence resonance energy transfer.

IT **6268-49-1**

RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses) (energy transfer **quencher**; methods, kits and compns. pertaining to detection complexes for nucleic acid targets)

RN 6268-49-1 CAPLUS

CN Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)

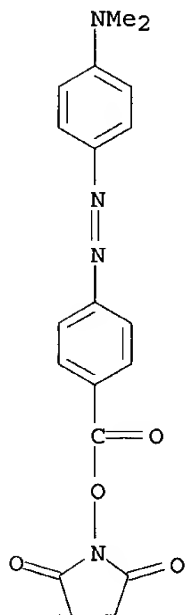


IT **146998-31-4**, 4-((4-(Dimethylamino)phenyl)azo)benzoic acid, succinimidyl ester

RL: RCT (Reactant); RACT (Reactant or reagent) (methods, kits and compns. pertaining to detection complexes for nucleic acid targets)

RN 146998-31-4 CAPLUS

CN 2,5-Pyrrolidinedione, 1-[[4-[[4-(dimethylamino)phenyl]azo]benzoyl]oxy]- (9CI) (CA INDEX NAME)



IT **146998-27-8P**, Fmoc-K(dabcyl)-OH

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (methods, kits and compns. pertaining to detection complexes for nucleic acid targets)

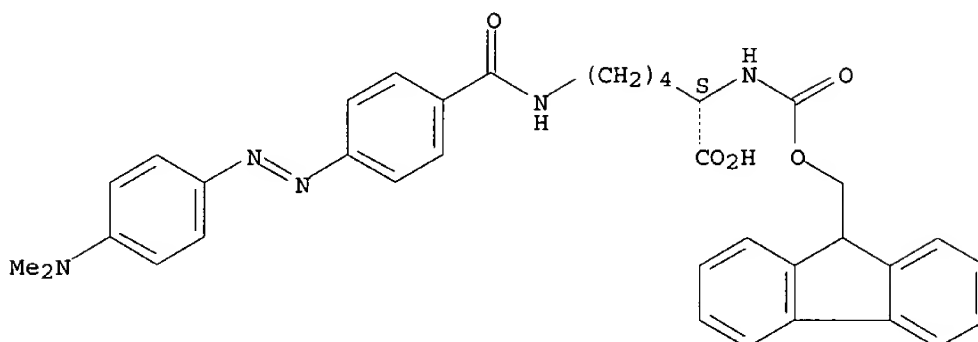
RN 146998-27-8 CAPLUS

CN L-Lysine, N6-[4-[[4-(dimethylamino)phenyl]azo]benzoyl]-N2-[(9H-fluoren-9-

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ylmethoxy)carbonyl] - (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.



L5 ANSWER 63 OF 96 CAPLUS COPYRIGHT 2003 ACS

AN 1999:582623 CAPLUS

DN 131:195444

TI Methods using exogenous, internal controls and analog blocks during nucleic acid amplification

IN Aoyagi, Kazuko; Livak, Kenneth J.

PA Perkin-Elmer Corp., USA

SO U.S., 29 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

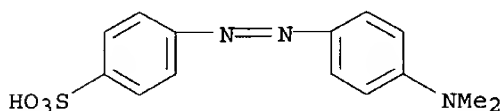
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5952202	A	19990914	US 1998-48880	19980326
	WO 2001016367	A1	20010308	WO 1999-US6978	19990326
	W: AU, CA, JP				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	AU 9933727	A1	20010326	AU 1999-33727	19990326
	EP 1104487	A1	20010606	EP 1999-915136	19990326
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
PRAI	US 1998-48880	A	19980326		
	WO 1999-US6978	W	19990326		

AB Reporter-quencher probe assays of nucleic acid amplification, such as PCR, are rendered more meaningful by the addn. of internal control reagents. An internal control polynucleotide is amplified with internal control primers and the product is measured by correlation with increased fluorescence by polymerase mediated-exonuclease cleavage or hybridization of the internal control probe. Probes specific for target and internal control polynucleotides are labeled with spectrally resolvable reporters, allowing for concurrent detection and measurement of target and control amplification. A kit of all PCR reagents can be dispensed into reaction chambers in a high-throughput system for rapid and accurate nucleic acid amplification assay, with real-time or end-point measurements. Fluorescent signals correlated to target and internal control levels are spectrally resolvable and measured concurrently. A non-extending oligonucleotide or nucleic analog "block", complementary to the internal control polynucleotide, is added to the amplification mixt. to preclude amplification of the internal control polynucleotide and function as an

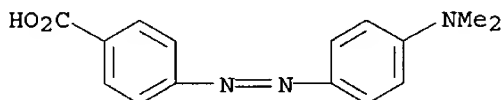
09567863

internal neg. control. The amplification control reagents, kits, and methods of the present invention provide pos. and neg. control tests occurring within, and measurable within, the reaction chamber.

IT 502-02-3D, conjugates with hybridization probes 6268-49-1D
, conjugates with hybridization probes
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(quencher; methods using exogenous, internal controls and
analog blocks during nucleic acid amplification)
RN 502-02-3 CAPLUS
CN Benzenesulfonic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX
NAME)



RN 6268-49-1 CAPLUS
CN Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)



RE.CNT 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

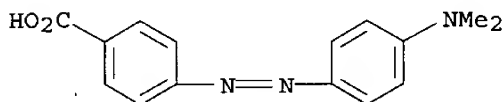
L5 ANSWER 64 OF 96 CAPLUS COPYRIGHT 2003 ACS
AN 1999:569085 CAPLUS
DN 132:31349
TI Detection of adenovirus using PCR and molecular beacon
AU Poddar, S. K.
CS Division of Infectious Diseases and Pediatric Pharmacology Research Unit
(PPRU), Department of Pediatrics, University of California at San Diego,
La Jolla, CA, USA
SO Journal of Virological Methods (1999), 82(1), 19-26
CODEN: JVMEDH; ISSN: 0166-0934
PB Elsevier Science B.V.
DT Journal
LA English
AB The polymerase chain reaction (PCR) and a mol. beacon probe were used for
the detection of Adenovirus. A 307 bp DNA fragment from a conserved
region of the hexon gene was amplified. The specific mol. beacon was
characterized with respect to its efficiency of quenching, and signal to
noise ratio by spectrofluorometric anal. of its hybridization with virus
specific complementary single stranded oligonucleotide target.
Amplification was carried out in the presence of the mol. beacon probe,
and the amplified target was detected by measurement of fluorescence
signal in the post PCR sample. Sep., a 32P-labeled linear probe (having
the same sequence as that of mol. beacon probe) was liq.-phase hybridized
with the product of PCR performed in the absence of the mol. beacon. The
virus specific target was then detected by electrophoresis of the
hybridized product in a nondenaturing polyacrylamide gel and subsequent
autoradiog. anal. The detection limit of adenovirus by PCR in the
presence of the mol. beacon probe was found to be similar to that obtained
by labeled linear probe hybridization following PCR.
IT 6268-49-1

09567863

RL: ARG (Analytical reagent use); BSU (Biological study, unclassified);
ANST (Analytical study); BIOL (Biological study); USES (Uses)
(DABCYL as **quencher**; detection of adenovirus using PCR and
mol. beacon)

RN 6268-49-1 CAPLUS

CN Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)



RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 65 OF 96 CAPLUS COPYRIGHT 2003 ACS

AN 1999:473504 CAPLUS

DN 131:319357

TI Fluorogenic MMP activity assay for plasma including MMPs complexed to
.alpha.2-macroglobulin

AU Beekman, B.; Drijfhout, J. W.; Runday, H. K.; TeKoppele, J. M.

CS Gaubius Laboratory, TNO Prevention and Health, Leiden, Neth.

SO Annals of the New York Academy of Sciences (1999), 878(Inhibition of
Matrix Metalloproteinases), 150-158

CODEN: ANYAA9; ISSN: 0077-8923

PB New York Academy of Sciences

DT Journal

LA English

AB Elevated MMP activities are implicated in tissue degrdn. in, e.g.,
arthritis and cancer. The present study was designed to measure MMP
enzyme activity in plasma. Free active MMP is unlikely to be present in
plasma: upon entering the circulation, active MMP is expected to be
captured by the proteinase inhibitor .alpha.2-macroglobulin (.alpha.2M).
Reconstituted MMP-13/.alpha.2M complex was unable to degrade collagen (MW
300,000) in contrast to the low-mol.-wt. fluorogenic substrate (MW <1500).
Limited access of high-MW substrates to the active site of MMPs captured
by .alpha.2M presents the most likely explanation. Consistently, the
high-MW inhibitor TIMP (MW .apprx.28,000) was unable to inhibit
MMP/.alpha.2M enzyme activity, whereas the low-MW inhibitor BB94 (MW
.apprx.500) effectively suppressed enzyme activity. By using fluorogenic
substrates with Dabcyl/Fluorescein as **quencher**/fluorophore
combination, sensitive MMP-activity assays in plasma were achieved.
Spiking of active MMP-13 and MMP-13/.alpha.2M complex, and inhibitor
studies with TIMP-1 and BB94, indicated that active MMPs are efficiently
captured by .alpha.2M in plasma. MMP activity was even detected in
control plasma, and was significantly increased in plasma from rheumatoid
arthritis patients.

IT 248581-19-3 248581-20-6

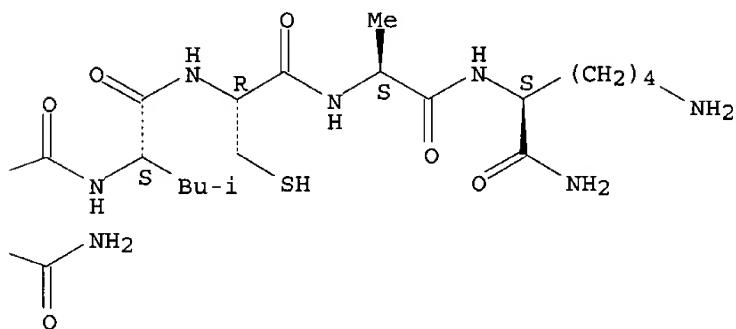
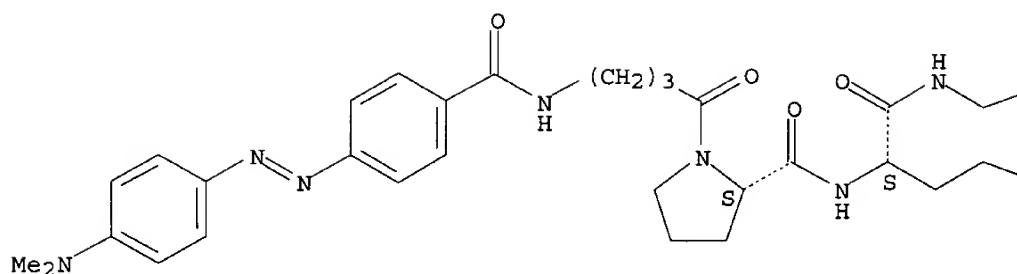
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(fluorogenic MMP activity assay for plasma including MMPs complexed to
.alpha.2-macroglobulin)

RN 248581-19-3 CAPLUS

CN L-Lysinamide, 1-[4-[[4-[[4-(dimethylamino)phenyl]azo]benzoyl]amino]-1-
oxobutyl]-L-prolyl-L-glutaminyglycyl-L-leucyl-L-cysteinyl-L-alanyl- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.

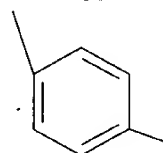
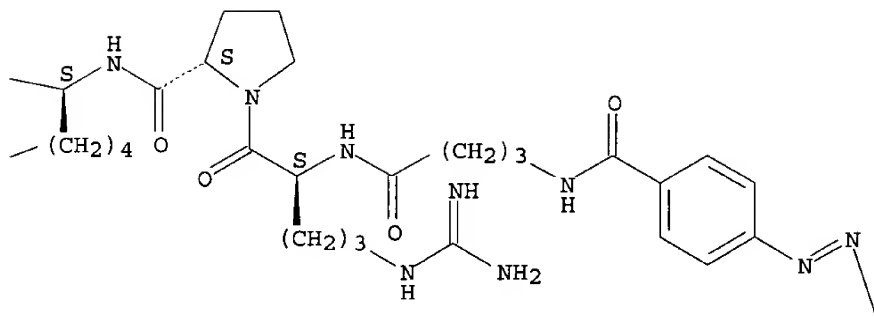
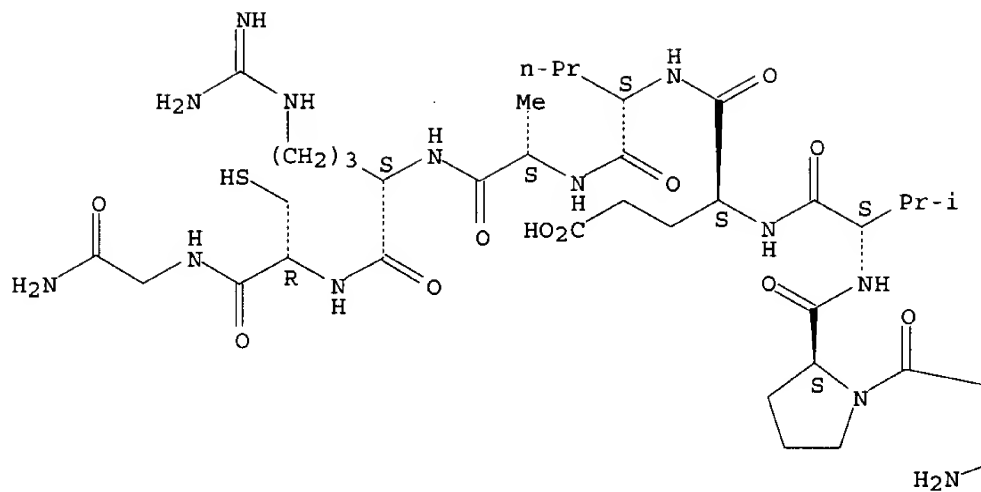
Double bond geometry unknown.



RN 248581-20-6 CAPLUS

CN Glycinamide, N2-[4-[[4-[[4-(dimethylamino)phenyl]azo]benzoyl]amino]-1-oxobutyl]-L-arginyl-L-prolyl-L-lysyl-L-prolyl-L-valyl-L-.alpha.-glutamyl-L-norvalyl-L-alanyl-L-arginyl-L-cysteinyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.



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PAGE 2-C

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RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

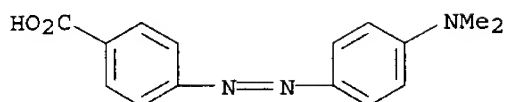
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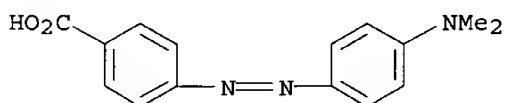
=> d 15 bib abs hitstr 66-96

L5 ANSWER 66 OF 96 CAPLUS COPYRIGHT 2003 ACS
AN 1999:390444 CAPLUS
DN 131:40534
TI Method to detect apoptosis using fluorescence energy resonance transfer
(FRET)-labeled oligonucleotides
IN James, William M.; Nazarenko, Irina A.
PA Intergen Company, USA
SO PCT Int. Appl., 51 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9929905	A2	19990617	WO 1998-US26432	19981211
	WO 9929905	A3	19990826		
	W: CA, JP				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	CA 2314225	AA	19990617	CA 1998-2314225	19981211
	EP 1036201	A2	20000920	EP 1998-963108	19981211
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	JP 2001526052	T2	20011218	JP 2000-524476	19981211
PRAI	US 1997-69434P	P	19971212		
	WO 1998-US26432	W	19981211		
AB	Ligase-mediated polymerase chain reaction (LM-PCR) methods are used to detect target double-stranded nucleic acid fragments generated during the process of apoptosis. In these methods, a detectable oligonucleotide is incorporated into the target. This detectable oligonucleotide contains the donor moiety and/or the acceptor moiety of a mol. energy transfer (MET) pair. An example of a MET pair is an FRET pair consisting of a fluorophore (donor) moiety and a quencher (acceptor) moiety. The donor moiety of the MET pair emits detectable energy such as light only when the detectable oligonucleotide is incorporated into the target. In these methods, a linker-primer oligonucleotide annealed to a ligation-aid oligonucleotide, or a linker-primer oligonucleotide contg. a ligation-aid sequence, is ligated to the 5' end of each strand of a double-stranded nucleic acid fragment contg. either a blunt end or a terminal overhang. After this ligation step, a detectable oligonucleotide capable of annealing to the complement of the linker-primer oligonucleotide is incorporated into the target by polymerase-catalyzed reactions. Alternatively, the linker-primer oligonucleotide is also a detectable oligonucleotide. Optionally, the target labeled by the detectable oligonucleotide is subsequently amplified, wherein the detectable oligonucleotide is incorporated into the amplification product. The target is detected by detecting the energy emitted by the donor moiety of the detectable oligonucleotide.				
IT	6268-49-1D, oligonucleotide labeled with RL: ARU (Analytical role, unclassified); ANST (Analytical study) (energy acceptor; method to detect apoptosis using fluorescence energy resonance transfer (FRET)-labeled oligonucleotides)				
RN	6268-49-1 CAPLUS				
CN	Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)				



L5 ANSWER 67 OF 96 CAPLUS COPYRIGHT 2003 ACS
 AN 1999:365067 CAPLUS
 DN 131:209702
 TI Single and multiple molecular beacon probes for DNA hybridization studies on a silica glass surface
 AU Fang, Xiaohong; Liu, Xiaojing; Tan, Weihong
 CS UF Brain Inst., Dep. Chem., Univ. of Florida, Gainesville, FL, USA
 SO Proceedings of SPIE-The International Society for Optical Engineering (1999), 3602(Advances in Fluorescence Sensing Technology IV), 149-155
 CODEN: PSISDG; ISSN: 0277-786X
 PB SPIE-The International Society for Optical Engineering
 DT Journal
 LA English
 AB Surface immobilizable mol. beacons have been developed for DNA hybridization studies on a silica glass plate. Mol. beacons are a new class of oligonucleotide probes that have a loop-and-stem structure with a fluorophore and a **quencher** attached to the two ends of the stem. They only emit intense fluorescence when hybridize to their target mols. This provides an excellent selectivity for the detection of DNA mols. Biotinylated mol. beacons were designed which can be immobilized onto a solid surface. The mol. beacon is synthesized using DABCYL as the **quencher** and an optical stable dye, tetramethylrhodamine, as the fluorophore. Mass spectrometry is used to confirm the synthesized mol. beacon. The mol. beacons have been immobilized onto a silica surface through biotin-avidin binding. The surface immobilized mol. beacons have been used for the detection of target DNA with subnanomolar anal. sensitivity. Two different mol. beacons were also immobilized on a silica surface in spatially resolved microscopic regions. The hybridization study of these 2 different mol. beacon probes has shown excellent selectivity for their target sequences. The newly designed mol. beacons are intended for DNA mol. interaction studies at an interface and for the development of ultrasensitive DNA sensors for a variety of applications including disease diagnosis, disease mechanism studies, new drug development, and in the investigation of mol. interactions between DNA mols. and other interesting biomols.
 IT 6268-49-1D, biotinylated single-stranded DNA probe contg.
 RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses) (single and multiple mol. beacon probes for DNA hybridization studies on a silica glass surface)
 RN 6268-49-1 CAPLUS
 CN Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)



RE.CNT 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 68 OF 96 CAPLUS COPYRIGHT 2003 ACS
 AN 1999:299537 CAPLUS
 DN 130:348172

09567863

TI Peptide nucleic acid Molecular Beacon probes and their synthesis, hybridization characteristics, and use for detection of target nucleic acids

IN Coull, James M.; Gildea, Brian D.; Hyldig-Nielsen, Jens

PA Boston Probes, Inc., USA

SO PCT Int. Appl., 85 pp.

CODEN: PIXXD2

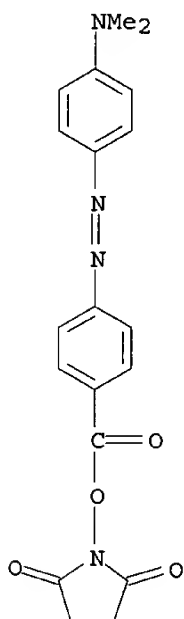
DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9922018	A2	19990506	WO 1998-US22785	19981027
	WO 9922018	A3	19991021		
	W:		AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, HU, IL, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, SL, TR, UA, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM		
	RW:		GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG		
	AU 9913662	A1	19990517	AU 1999-13662	19981027
	EP 1025120	A2	20000809	EP 1998-957388	19981027
	R:		AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI		
PRAI	US 1997-958532	A2	19971027		
	WO 1998-US22785	W	19981027		
AB	This invention is directed to methods, kits and compns. pertaining to peptide nucleic acid (PNA) Mol. Beacons. PNA Mol. Beacons comprise self-complementary arm segments and flexible linkages which promote intramol. or intermol. interactions. At a min. a PNA Mol. Beacon comprises a probing nucleobase sequence, two arm segments, wherein at least one arm segment is linked to the probe through a flexible linkage, at least one linked donor moiety and at least one linked acceptor moiety. The donor and acceptor moieties can be linked at any position within the PNA Mol. Beacon, provided that the point of attachment of donor and acceptor moieties of a set are located at opposite ends of the probing nucleobase sequence. In the absence of a target sequence, PNA Mol. Beacons facilitate efficient energy transfer between the linked donor and acceptor moieties of the probe. Upon hybridization of the probe to a target sequence, there is a measurable change in at least one property of at least one donor or acceptor moiety of the probe which can be used to detect, identify or quantitate the target sequence in a sample. Flexible linkages inserted within the PNA probe and short self-complementary arm segments (2-5 subunits in length) are a preferred embodiment since their signal-to-noise ratio compare well with the signal-to-noise ratio published for nucleic acid hairpins. The PNA Mol. Beacons exhibit all the favorable properties of PNA such as resistance to nuclease degn., salt independent sequence hybridization to complementary nucleic acids, and rapid hybridization kinetics.				
IT	146998-31-4				
	RL: RCT (Reactant); RACT (Reactant or reagent)				
	(chem. synthesis of PNA probes; peptide nucleic acid Mol. Beacon probes and their synthesis, hybridization characteristics, and use for detection of target nucleic acids)				
RN	146998-31-4 CAPLUS				
CN	2,5-Pyrrolidinedione, 1-[[4-[[4-(dimethylamino)phenyl]azo]benzoyl]oxy]- (9CI) (CA INDEX NAME)				

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IT 146998-27-8P

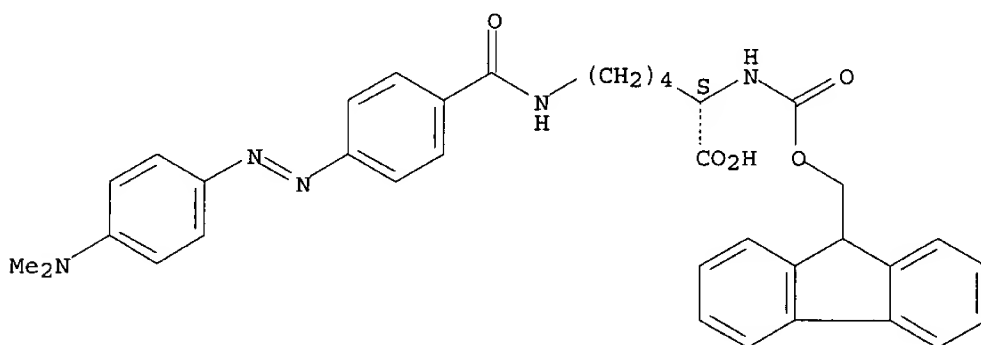
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(chem. synthesis of PNA probes; peptide nucleic acid Mol. Beacon probes and their synthesis, hybridization characteristics, and use for detection of target nucleic acids)

RN 146998-27-8 CAPLUS

CN L-Lysine, N6-[4-[[4-(dimethylamino)phenyl]azo]benzoyl]-N2-[(9H-fluoren-9-ylmethoxy)carbonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.



IT 6268-49-1

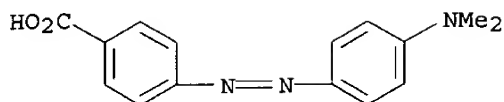
RL: MOA (Modifier or additive use); USES (Uses)

(quencher; peptide nucleic acid Mol. Beacon probes and their synthesis, hybridization characteristics, and use for detection of target nucleic acids)

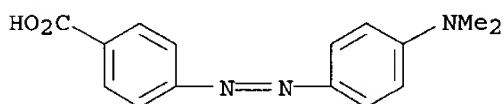
RN 6268-49-1 CAPLUS

CN Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)

09567863



L5 ANSWER 69 OF 96 CAPLUS COPYRIGHT 2003 ACS
AN 1999:188585 CAPLUS
DN 130:261195
TI A new generation of fluorescent chemosensors demonstrate improved analyte detection sensitivity and photobleaching resistance
AU Rothman, Jeffrey H.; Still, W. Clark
CS Department of Chemistry, Columbia University, New York, NY, 10027, USA
SO Bioorganic & Medicinal Chemistry Letters (1999), 9(4), 509-512
CODEN: BMCLE8; ISSN: 0960-894X
PB Elsevier Science Ltd.
DT Journal
LA English
AB Mol. chemosensors found increased utility in the development of precise and sensitive detection devices. However, chemosensors that report binding via fluorescence through UV excitation are susceptible to destruction via photodegrdn. of the fluorophore. In the following report, the dansyl fluorophore in a previously reported chemosensor for peptides is replaced with an acridone deriv. that is highly resistant to photobleaching. Its spectral properties are closely matched to those of the original dansyl fluorophore, and although quite structurally dissimilar, the new more photostable acridone chemosensor analog exhibits only minor differences in binding/detection characteristics.
IT 6268-49-1
RL: ARU (Analytical role, unclassified); PRP (Properties); ANST (Analytical study)
(quencher for dansyl and acridone fluorophores for fluorescent chemosensors for peptide detection)
RN 6268-49-1 CAPLUS
CN Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)



RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 70 OF 96 CAPLUS COPYRIGHT 2003 ACS
AN 1999:181255 CAPLUS
DN 130:347922
TI In situ amplification using universal energy transfer-labeled primers
AU Nuovo, G. J.; Hohman, R. J.; Nardone, G. A.; Nazarenko, I. A.
CS MGN Medical Research Laboratory, Setauket, NY, 11733, USA
SO Journal of Histochemistry and Cytochemistry (1999), 47(3), 273-279
CODEN: JHCYAS; ISSN: 0022-1554
PB Histochemical Society, Inc.
DT Journal
LA English
AB We developed an amplification detection system in which a universal energy transfer-labeled primer (UniPrimer) is used in combination with any target-specific primer pair. The target specific primers each have a 5' tail sequence, which is homologous to the 3' end of the UniPrimer which,

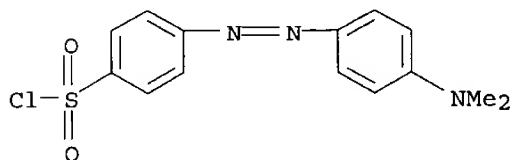
in turn, has a hairpin structure on the 5' end. The hairpin structure brings the fluorophore and **quencher** into close proximity when the primer is free in soln., providing efficient quenching. When the primer is incorporated into the PCR product, the hairpin structure is unfolded and a fluorescent signal can be detected. Using hepatitis C and human papillomavirus as model systems, this study demonstrates several advantages in the hot-start in situ PCR technique with the UniPrimer system, including target specific detection of one DNA copy per cell without a sep. in situ hybridization step and detection of an RNA target by RT in situ PCR without overnight DNase digestion. The UniPrimer-based in situ PCR allows rapid and simple detection of any DNA or RNA target without concern for the background from DNA repair invariably evident in paraffin-embedded tissue when a labeled nucleotide is used.

IT 56512-49-3D, PCR primer contg.

RL: ANT (Analyte); ARU (Analytical role, unclassified); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); ANST (Analytical study); BIOL (Biological study); PROC (Process)
(in situ amplification PCR using UniPrimer universal energy transfer-labeled primers)

RN 56512-49-3 CAPLUS

CN Benzenesulfonyl chloride, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)



RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 71 OF 96 CAPLUS COPYRIGHT 2003 ACS

AN 1999:90249 CAPLUS

DN 130:149529

TI Nucleic acid amplification oligonucleotides with molecular energy transfer labels and methods based thereon

IN Nazarenko, Irina A.; Bhatnagar, Satish K.; Winn-Deen, Emily S.; Hohman, Robert J.

PA Oncor, Inc., USA

SO U.S., 68 pp., Cont.-in-part of U.S. Ser. No. 683,667, abandoned.
CODEN: USXXAM

DT Patent

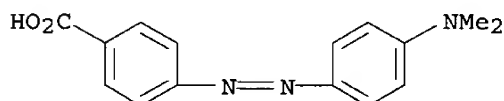
LA English

FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5866336	A	19990202	US 1997-778487	19970103
	US 6117635	A	20000912	US 1997-837034	19970411
	US 6090552	A	20000718	US 1997-891516	19970711
	CA 2260973	AA	19980122	CA 1997-2260973	19970715
	WO 9802449	A1	19980122	WO 1997-US12315	19970715
W:	AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, GH, HU, IL, IS, JP, KG, KP, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW:	GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				

09567863

AU 9737285 A1 19980209 AU 1997-37285 19970715
EP 912597 A1 19990506 EP 1997-934163 19970715
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, FI
JP 2001513623 T2 20010904 JP 1998-506248 19970715
PRAI US 1996-683667 B2 19960716
US 1997-778487 A2 19970103
US 1997-837034 A2 19970411
WO 1997-US12315 W 19970715
AB The present invention provides nucleic acid amplification
oligonucleotides, which can be linear or hairpin primers or blocking
oligonucleotides, labeled with donor and/or acceptor moieties of mol.
energy transfer pairs, the coupling of which can be detected by presence
or absence of a detectable energy emission. The moieties can be
fluorophores, such that fluorescent energy emitted by the donor is
absorbed by the acceptor. The acceptor may be a fluorophore that
fluoresces at a wavelength different from the donor moiety, or it may be a
quencher. The oligonucleotides of the invention are configured so
that a donor moiety and an acceptor moiety are incorporated into the
amplification product. The invention also provides methods and kits for
directly detecting amplification products employing the nucleic acid
amplification primers. When labeled linear primers are used, treatment
with exonuclease or by using specific temp. eliminates the need for sepn.
of unincorporated primers. This "closed-tube" format greatly reduces the
possibility of carryover contamination with amplification products,
provides for high throughput of samples, and may be totally automated.
IT 6268-49-1
RL: ARU (Analytical role, unclassified); BUU (Biological use,
unclassified); ANST (Analytical study); BIOL (Biological study); USES
(Uses)
(acceptor fluorophore label; nucleic acid amplification
oligonucleotides with mol. energy transfer labels and methods based
thereon)
RN 6268-49-1 CAPLUS
CN Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)



RE.CNT 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 72 OF 96 CAPLUS COPYRIGHT 2003 ACS
AN 1998:638356 CAPLUS
DN 130:21990
TI A continuous fluorimetric assay for tail-specific protease
AU Beebe, Kirk D.; Pei, Dehua
CS Ohio State Biochemistry Program, The Ohio State University, Columbus, OH,
43210, USA
SO Analytical Biochemistry (1998), 263(1), 51-56
CODEN: ANBCA2; ISSN: 0003-2697
PB Academic Press
DT Journal
LA English
AB A continuous fluorimetric assay for tail-specific protease (Tsp) has been
developed using a fluorescence donor/**quencher** system, in which
5-[(2-aminoethyl) amino]naphthalene-1-sulfonic acid (EDANS) and
4-(4-dimethylaminophenylazo)benzoic acid (DABCYL) are attached to the

N-terminus and the lysyl side chain of peptide AARAAG-(6-aminocaproyl)2-ENYALAA, resp. Tsp-mediated cleavage of the Ala-Arg peptide bond separates the quencher, DABCYL, from the donor, EDANS, and results in a large increase in the fluorescent yield of EDANS (>50-fold). Using this sensitive assay, Escherichia coli tail-specific protease was shown to exhibit typical Michaelis-Menten kinetics with a k_{cat} of $0.086 \pm 0.002 \text{ s}^{-1}$, K_M of $4.0 \pm 0.3 \mu\text{M}$, and k_{cat}/K_M of $2.2 \times 10^4 \text{ M}^{-1} \text{ s}^{-1}$. A control substrate, which only differs from the above substrate by having a charged residue (glutamate) at the C-terminus, showed drastically reduced activity to Tsp ($k_{cat}/K_M = 58 \text{ M}^{-1} \text{ s}^{-1}$). A peptide contg. the C-terminal sequence of the substrate, GRGYALAA, was shown to be a competitive inhibitor of Tsp with a K_I value of $31 \mu\text{M}$. These results demonstrate the utility of this assay for the rapid assessment of Tsp activity. (c) 1998 Academic Press.

IT 215959-45-8P

RL: ARG (Analytical reagent use); BPR (Biological process); BSU (Biological study, unclassified); SPN (Synthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)

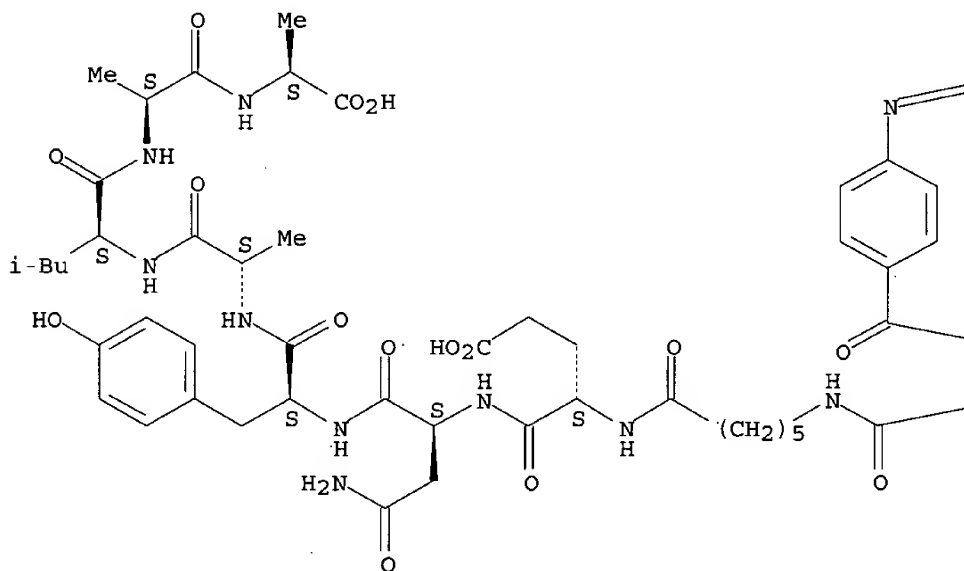
(a continuous fluorimetric assay for tail-specific protease)

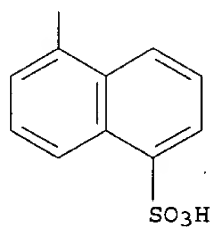
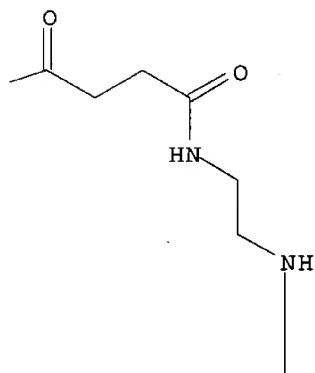
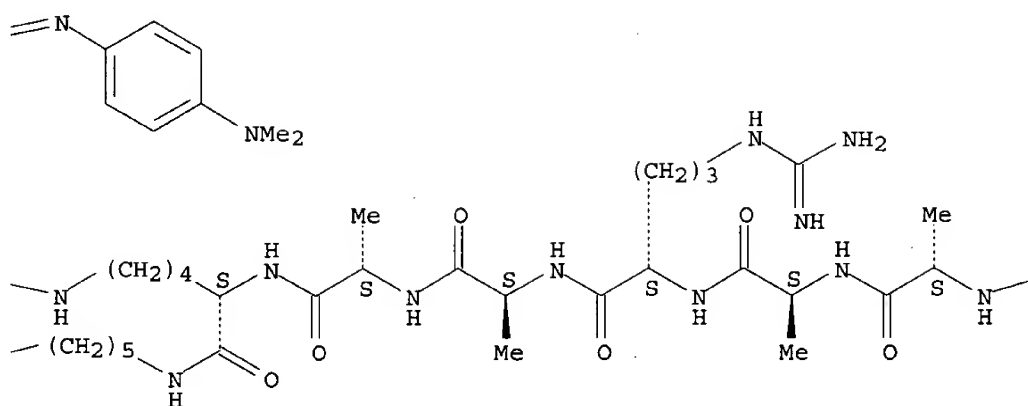
RN 215959-45-8 CAPLUS

CN L-Alanine, N-[1,4-dioxo-4-[[2-[(5-sulfo-1-naphthalenyl)amino]ethyl]amino]butyl]-L-alanyl-L-alanyl-L-arginyl-L-alanyl-L-alanyl-N6-[4-[[4-(dimethylamino)phenyl]azo]benzoyl]-L-lysyl-6-aminohexanoyl-6-aminohexanoyl-L-.alpha.-glutamyl-L-asparaginyl-L-tyrosyl-L-alanyl-L-leucyl-L-alanyl-(9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

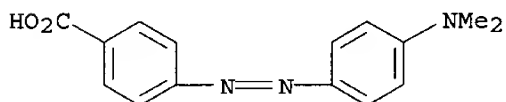
PAGE 1-A



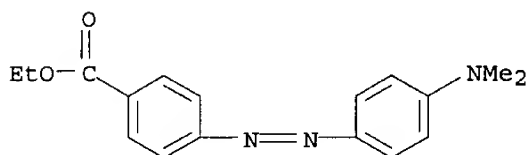


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IT 6268-49-1, 4-(4-Dimethylaminophenylazo)benzoic acid
RL: RCT (Reactant); RACT (Reactant or reagent)
(a continuous fluorimetric assay for tail-specific protease)
RN 6268-49-1 CAPLUS
CN Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)



IT 26962-53-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(a continuous fluorimetric assay for tail-specific protease)
RN 26962-53-8 CAPLUS
CN Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]-, ethyl ester (9CI) (CA
INDEX NAME)

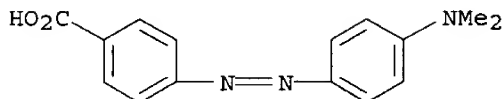


RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 73 OF 96 CAPLUS COPYRIGHT 2003 ACS
AN 1998:577686 CAPLUS
DN 129:286496
TI PNA molecular beacons for rapid detection of PCR amplicons
AU Ortiz, E.; Estrada, G.; Lizardi, P. M.
CS Department of Molecular Recognition and Structural Biology, Instituto de
Biotecnologia, Universidad Nacional Autonoma de Mexico, Cuernavaca,
Morelos, 62271, Mex.
SO Molecular and Cellular Probes (1998), 12(4), 219-226
CODEN: MCPRE6; ISSN: 0890-8508
PB Academic Press
DT Journal
LA English
AB The authors have developed a method for rapid detection of polymerase
chain reaction (PCR) amplicons based on surface immobilized PNA-DNA hybrid
probes ('mol. beacons') that undergo a fluorescent-linked conformational
change in the presence of a complementary DNA target. Amplicons can be
detected by simply adding a PCR reaction to a microtiter-well contg. the
previously immobilized probe, and reading the generated fluorescence. No
further transfers or washing steps are involved. The authors demonstrate
the specificity of the method for the detection of ribosomal DNA from
Entamoeba histolytica. (c) 1998 Academic Press.
IT 6268-49-1
RL: BUU (Biological use, unclassified); RCT (Reactant); BIOL (Biological
study); RACT (Reactant or reagent); USES (Uses)
(as quencher for PNA probe for detection of Entamoeba
histolytica rDNA labeled with DABCYL and AMCA; PNA mol. beacons for
rapid detection of PCR amplicons)
RN 6268-49-1 CAPLUS

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CN Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)



RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 74 OF 96 CAPLUS COPYRIGHT 2003 ACS

AN 1998:152957 CAPLUS

DN 128:290727

TI In situ visualization of messenger RNA for basic fibroblast growth factor in living cells

AU Matsuo, Toshihiko

CS 2-5-1 Shikatacho, Department of Ophthalmology, Okayama University Medical School, Okayama City, 700, Japan

SO Biochimica et Biophysica Acta (1998), 1379(2), 178-184

CODEN: BBACAQ; ISSN: 0006-3002

PB Elsevier Science B.V.

DT Journal

LA English

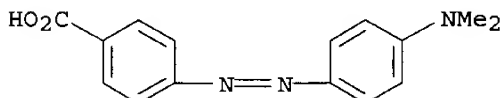
AB Whether mRNA for basic fibroblast growth factor (bFGF) could be visualized specifically by a fluorescent probe in living cells was examd. A 15-nucleotide-long antisense or sense sequence for human bFGF was sandwiched between 2 complementary 5-nucleotide-long arm sequences. A fluorophore, 5-(2'-aminoethyl)aminonaphthalene-1-sulfonic acid (EDANS), was jointed to the 5'-terminal phosphate, while 4-(4'-dimethylaminophenylazo)benzoic acid, **quencher** for EDANS, was jointed to the 3'-terminal hydroxyl group. The probe emitted blue fluorescence only upon hybridization with the complementary 18-nucleotide-long sequence under UV light. The antisense or sense probe carried with liposome was delivered to human cells, trabecular cells of the eye, in a glass-bottom culture dish placed on the stage of an inverted microscope. Cells with the antisense probe did, but not with the sense probe, show blue fluorescence under UV light. The present study opens a way to measure the changing levels of a specific mRNA in living cells.

IT 6268-49-1

RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(in situ visualization of mRNA for basic fibroblast growth factor in living cells)

RN 6268-49-1 CAPLUS

CN Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)



L5 ANSWER 75 OF 96 CAPLUS COPYRIGHT 2003 ACS

AN 1998:71147 CAPLUS

DN 128:137159

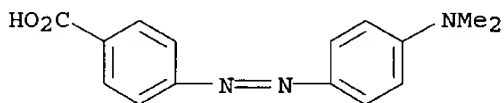
TI Oligonucleotide primers with molecular energy transfer labels and their use in closed-tube nucleic acid amplification

IN Nazarenko, Irina A.; Bhatnagar, Satish K.; Winn-Deen, Emily S.; Hohman, Robert J.

09567863

PA Oncor, Inc., USA
 SO PCT Int. Appl., 196 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9802449	A1	19980122	WO 1997-US12315	19970715
	W: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, GH, HU, IL, IS, JP, KG, KP, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	US 5866336	A	19990202	US 1997-778487	19970103
	US 6117635	A	20000912	US 1997-837034	19970411
	AU 9737285	A1	19980209	AU 1997-37285	19970715
	EP 912597	A1	19990506	EP 1997-934163	19970715
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	JP 2001513623	T2	20010904	JP 1998-506248	19970715
PRAI	US 1996-683667	A	19960716		
	US 1997-778487	A	19970103		
	US 1997-837034	A	19970411		
	WO 1997-US12315	W	19970715		
AB	Oligonucleotides labeled with donor and/or acceptor moieties of mol. energy transfer pairs and that may be linear or hairpin primers or blocking oligonucleotides are described for use in quant. nucleic acid amplification without the need to open the tube to quantify the products. The moieties can be fluorophores, such that fluorescent energy emitted by the donor is absorbed by the acceptor. The acceptor may be a fluorophore that fluoresces at a wavelength different from the donor moiety, or it may be a quencher . The oligonucleotides are configured so that a donor moiety and an acceptor moiety are incorporated into the amplification product. The invention also provides methods and kits for directly detecting amplification products employing the nucleic acid amplification primers. When labeled linear primers are used, treatment with exonuclease or by using specific temp. eliminates the need for sepn. of unincorporated primers. This closed-tube format greatly reduces the possibility of carryover contamination with amplification products, provides for high throughput of samples, and may be totally automated.				
IT	6268-49-1 RL: ARU (Analytical role, unclassified); ANST (Analytical study) (as energy transfer label in primers; oligonucleotide primers with mol. energy transfer labels and their use in closed-tube nucleic acid amplification)				
RN	6268-49-1 CAPLUS				
CN	Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)				



L5 ANSWER 76 OF 96 CAPLUS COPYRIGHT 2003 ACS
 AN 1997:696768 CAPLUS
 DN 127:342638

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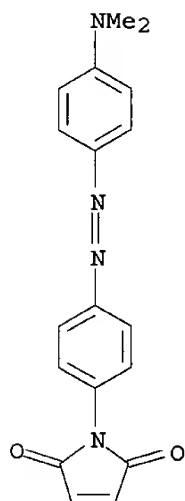
TI Detection of probes in nucleic acid hybridization using non-FRET
(fluorescence resonance energy transfer) pairs of chromophores
IN Tyagi, Sanjay; Kramer, Fred R.
PA Public Health Research Institute of the City of New York, Inc., USA;
Tyagi, Sanjay; Kramer, Fred R.
SO PCT Int. Appl., 54 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9739008	A1	19971023	WO 1997-US6208	19970414
	W: AU, CA, JP, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	WO 9810096	A1	19980312	WO 1997-US6532	19970412
	W: AU, CA, JP, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	AU 9727357	A1	19980326	AU 1997-27357	19970412
	CA 2252048	AA	19971023	CA 1997-2252048	19970414
	AU 9729224	A1	19971107	AU 1997-29224	19970414
	AU 713667	B2	19991209		
	EP 892808	A1	19990127	EP 1997-923412	19970414
	R: BE, CH, DE, DK, FR, GB, IT, LI, NL, SE				
	JP 2000508660	T2	20000711	JP 1997-537293	19970414
	US 6150097	A	20001121	US 1997-990176	19971212
PRAI	US 1996-15409P	P	19960412		
	WO 1997-US6532	A	19970412		
	WO 1997-US6208	W	19970414		

AB Nucleic acid hybridization probes is described having a first conformation when not interacting with a target and a second conformation when interacting with a target, and having the ability to bring a label pair into touching contact in one conformation and not the other, are labeled with a non-FRET pair of chromophores and generate a fluorescent or absorbance signal. As opposed to FRET, quenching mols. and even other fluorophores can serve as efficient quenching moieties for fluorophores when attached to nucleic acid hybridization probes such that the fluorescing moiety and quenching moiety are in contact, even when the rules of FRET are violated. To demonstrate probes with "touching" pairs of a fluorophore with another fluorophore or **quencher**, where the pairs are not FRET pairs, fluorescence quenching efficiency was measured where Mol. Beacon probes were end-labeled with DABCYL at one end and one of 8 different fluorophores at the other end. DABCYL could quench the fluorescence of fluorescein, Lucifer Yellow, BIDIPY, eosine, erythrosine, tetramethylrhodamine, Texas Red, and coumarin. Effective fluorophore quenching also occurred in non-FRET pairs contg. other quenchers, DABMI and Malachite Green, as well as appropriate (shorter wavelength) fluorophores such as coumarin. The utility of fluorophore-**quencher** combinations is demonstrated in a multiplex detection assay using 4 different nucleic acid targets.

IT **87963-80-2D**, probes labeled with **198328-94-8D**, probes labeled with
RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); PRP (Properties); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(detection of probes in nucleic acid hybridization using non-FRET (fluorescence resonance energy transfer) pairs of chromophores)
RN **87963-80-2** CAPLUS
CN 1H-Pyrrole-2,5-dione, 1-[4-[[4-(dimethylamino)phenyl]azo]phenyl]- (9CI)
(CA INDEX NAME)

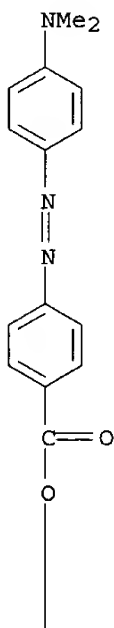
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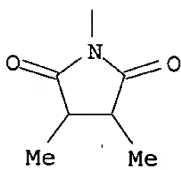
RN 198328-94-8 CAPLUS

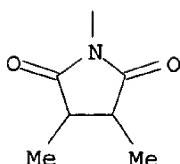
CN 2,5-Pyrrolidinedione, 1-[[4-[[4-(dimethylamino)phenyl]azo]benzoyl]oxy]-3,4-dimethyl- (9CI) (CA INDEX NAME)

PAGE 1-A



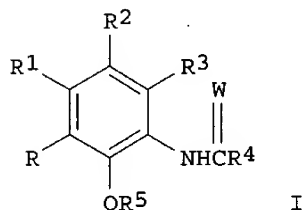
PAGE 2-A





L5 ANSWER 77 OF 96 CAPLUS COPYRIGHT 2003 ACS
 AN 1997:632838 CAPLUS
 DN 127:293004
 TI Preparation of 2-acylaminophenol derivatives as antioxidants and ACAT inhibitors
 IN Suzuki, Toshikazu; Omizu, Hiroshi; Hashimura, Yoshimasa; Kubota, Hitoshi; Saito, Keiko
 PA Tanabe Seiyaku Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 12 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09249628	A2	19970922	JP 1996-54498	19960312
PRAI	JP 1996-54498		19960312		
OS	MARPAT 127:293004				
GI					



AB The title compds. [I; R = H, alkyl, alkyloxy; one of R1 and R3 = H and the other together with R2 and the benzene ring forms a naphthalene ring or a bicyclic heterocyclic ring contg. O; W = O, S, NR7; wherein R7 = H, alkyl, aryl, OH, alkyloxy; R4 = (un)substituted NH2 or alkyl; OR5 = (un)protected OH], which quench active oxygen and possess antioxidant activity (no data), are prepd. They suppress macrophage foam cell formation owing to the above antioxidant activity as well as ACAT-inhibitory activity and thereby inhibit progress of arteriosclerosis. They also inhibit cardiac infarction, cell damages during ischemia/reperfusion, and arrhythmia owing to the active-oxygen quenching activity and antioxidant activity. Thus, (2-amino-4,5-methylenedioxyphenoxy)methoxymethane and Ph thioisocyanate were stirred in THF at room temp. for 4 h followed by treatment with concd. HCl in MeOH and CH2Cl2 at room temp. for 7 h to give 2-(3-phenylthioureido)-4,5-methylenedioxyphenol.

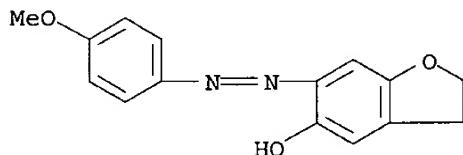
IT 197244-06-7P 197244-07-8P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (prepn. of 2-acylaminophenol derivs. as antioxidants and ACAT

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inhibitors for disease treatment)

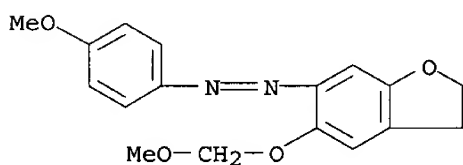
RN 197244-06-7 CAPLUS

CN 5-Benzofuranol, 2,3-dihydro-6-[(4-methoxyphenyl)azo]- (9CI) (CA INDEX NAME)



RN 197244-07-8 CAPLUS

CN Diazene, [2,3-dihydro-5-(methoxymethoxy)-6-benzofuranyl] (4-methoxyphenyl)- (9CI) (CA INDEX NAME)



L5 ANSWER 78 OF 96 CAPLUS COPYRIGHT 2003 ACS

AN 1997:558835 CAPLUS

DN 127:146511

TI Method for assaying proteolytic enzymes using fluorescence-quenched substrates

IN Te Koppele, Johannes Maria; Beekman, Bob

PA Nederlandse Organisatie voor Toegepast-Natuurwetenschappelijk Onderzoek Tno, Neth.; Te Koppele, Johannes Maria; Beekman, Bob

SO PCT Int. Appl., 34 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9725437	A1	19970717	WO 1997-NL2	19970102
	W: CA, JP, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	JP 2000503533	T2	20000328	JP 1997-525096	19970102
	EP 1019528	A1	20000719	EP 1997-900477	19970102
	R: BE, CH, DE, DK, FR, GB, IT, LI, NL, SE, IE, FI				
	US 6127139	A	20001003	US 1998-101167	19980702
PRAI	EP 1996-200017	A	19960104		
	WO 1997-NL2	W	19970102		

AB A method is disclosed for assaying a proteolytic enzyme comprising: (a) incubating an enzyme-contg. sample with an immobilized fluorescence-quenched peptide having the formula Que-Sub-Flu-Spa-Car or Flu-Sub-Que-Spa-Car wherein Sub is a peptide chain contg. a specific cleavage site for said proteolytic enzyme; Flu is a fluorophore; Que is a **quencher** capable of absorbing fluorescent radiation emitted by the fluorophore; Spa is a direct bond or a spacing chain; and Car is a water-insol. and/or macromol. carrier; (b) optionally sepg. the liq. from the carrier material; (c) irradiating said carrier material and measuring fluorescence. Also disclosed are immobilized substrates contg. specific

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amino acid sequences for use in such an assay, esp. in an assay for aggrecanase, and metalloproteinase-1, -3 and -13 activity. Substrates immobilized on silica, glass, bovine serum albumin and polyacrylamide were prepd.

IT 193475-68-2P 193475-69-3P 193475-70-6P

193475-71-7P 193475-72-8P 193475-73-9P

193475-74-0P 193475-75-1P

RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST

(Analytical study); PREP (Preparation); USES (Uses)

(method for assaying proteolytic enzymes using fluorescence-quenched substrates)

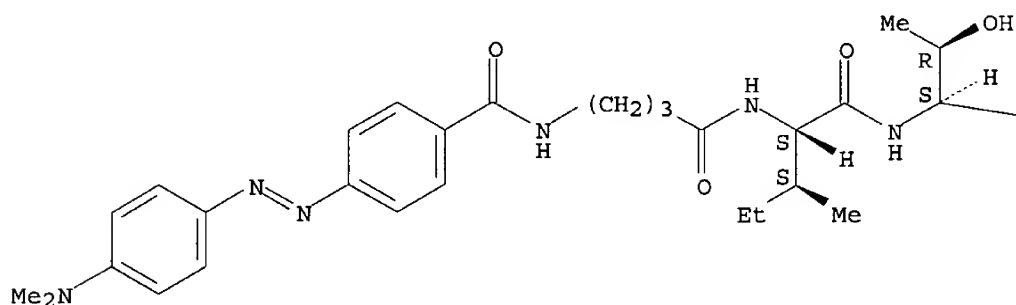
RN 193475-68-2 CAPLUS

CN L-Lysinamide, N-[4-[[4-[[4-(dimethylamino)phenyl]azo]benzoyl]amino]-1-oxobutyl]-L-isoleucyl-L-threonyl-L-.alpha.-glutamylglycyl-L-.alpha.-glutamyl-L-alanyl-L-arginylglycyl-L-seryl-N-[2-[(5-sulfo-1-naphthalenyl)amino]ethyl]-L-glutaminyl-L-isoleucyl- (9CI) (CA INDEX NAME)

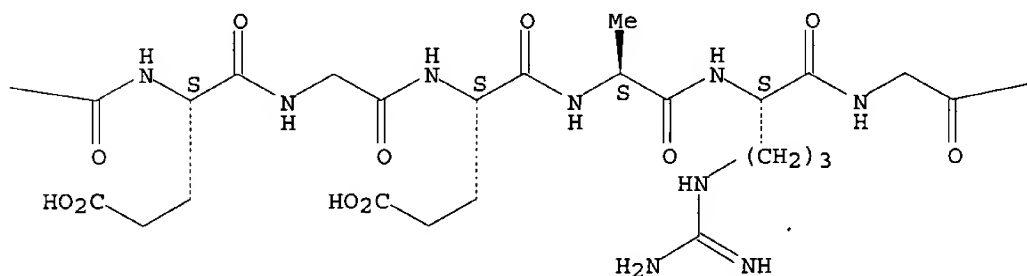
Absolute stereochemistry.

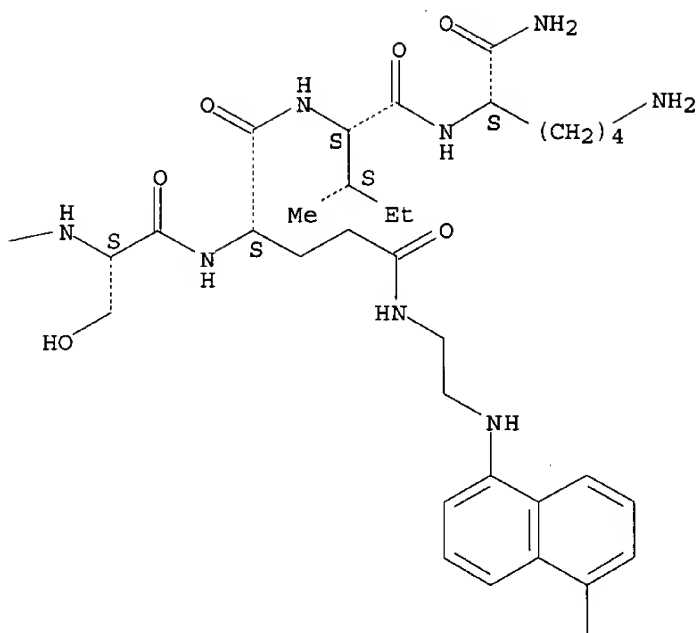
Double bond geometry unknown.

PAGE 1-A



PAGE 1-B

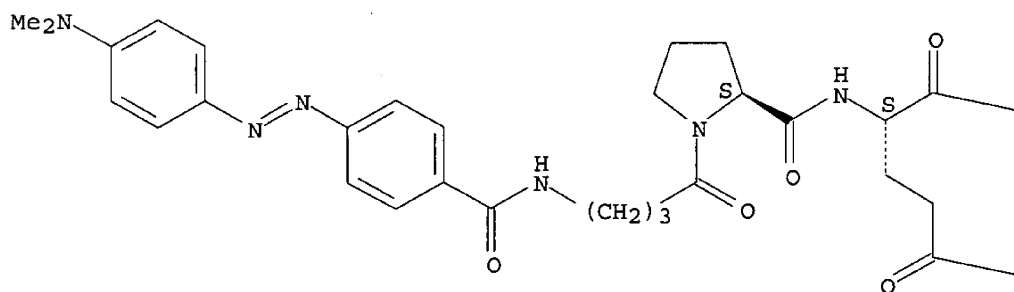


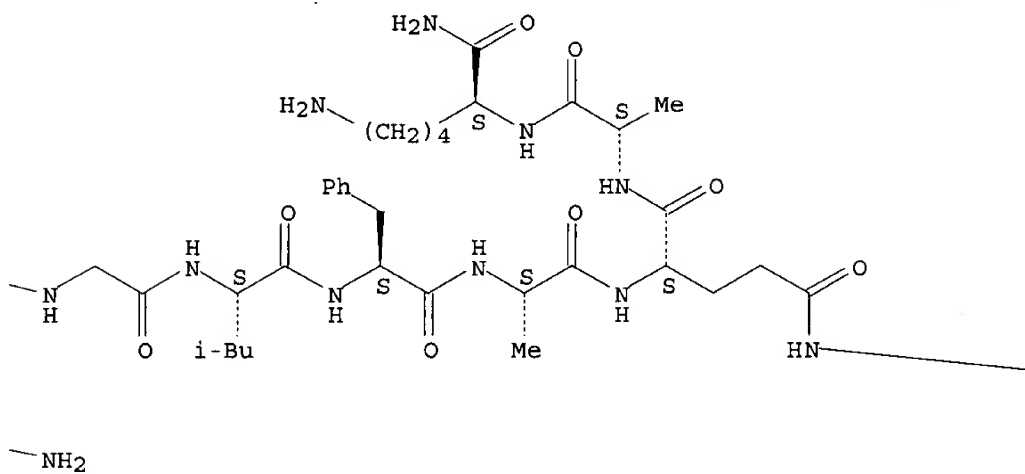
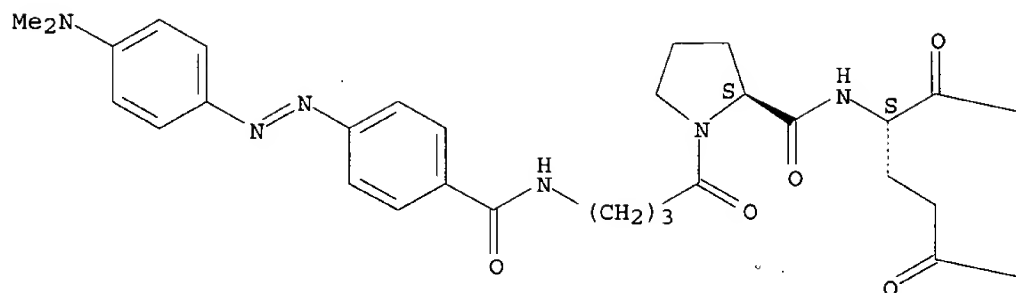


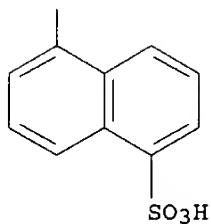
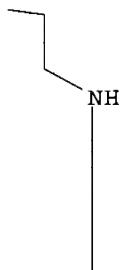
RN 193475-69-3 CAPLUS

CN L-Lysinamide, 1-[4-[[4-[[4-(dimethylamino)phenyl]azo]benzoyl]amino]-1-oxobutyl]-L-prolyl-L-glutaminyglycyl-L-leucyl-L-phenylalanyl-L-alanyl-N-[2-[(5-sulfo-1-naphthalenyl)amino]ethyl]-L-glutamyl-L-alanyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.



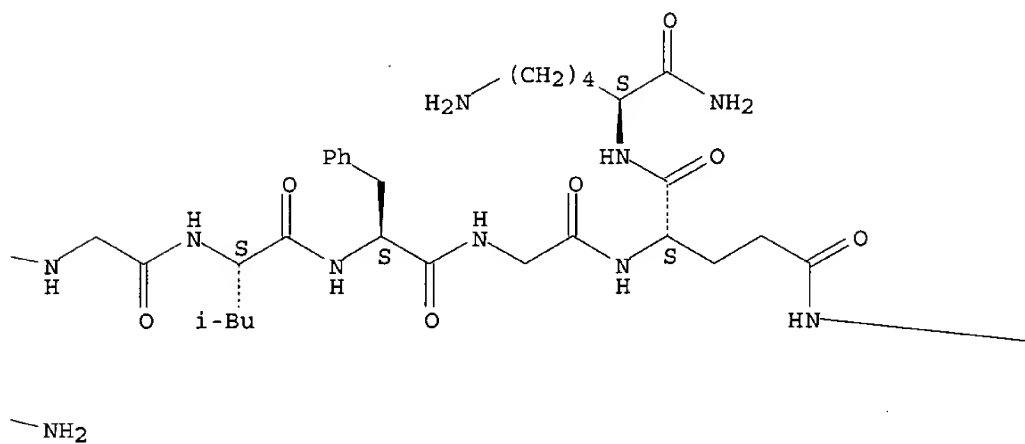
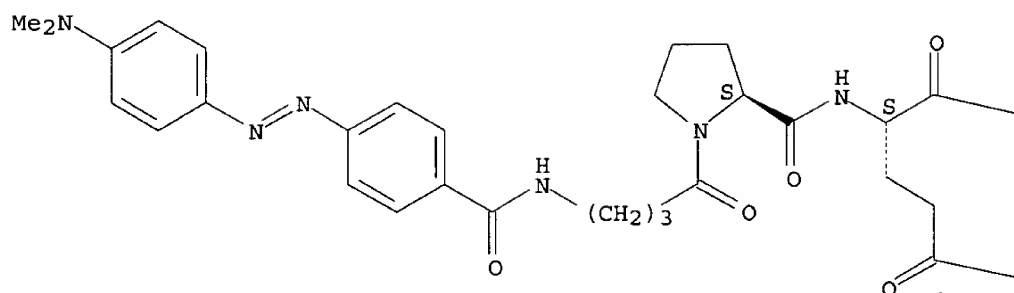


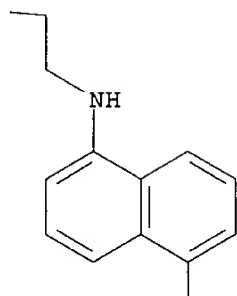


RN 193475-70-6 CAPLUS

CN L-Lysinamide, 1-[4-[[4-[[4-(dimethylamino)phenyl]azo]benzoyl]amino]-1-oxobutyl]-L-prolyl-L-glutaminyglycyl-L-leucyl-L-phenylalanylglycyl-N-[2-[(5-sulfo-1-naphthalenyl)amino]ethyl]-L-glutaminy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

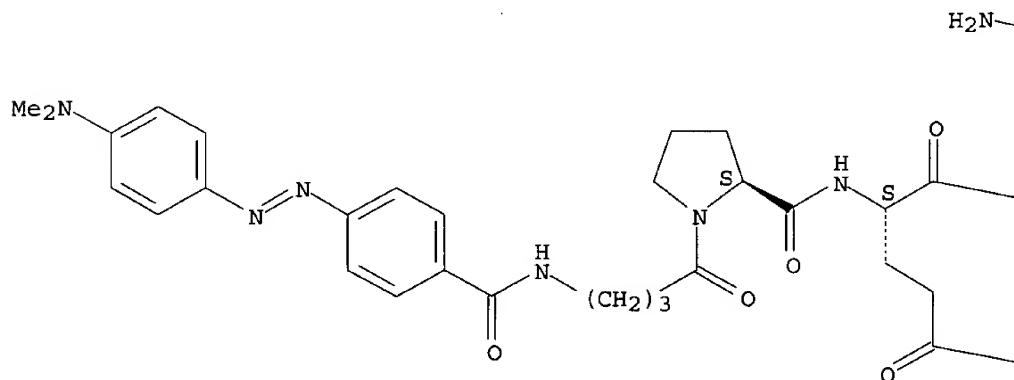




RN 193475-71-7 CAPLUS

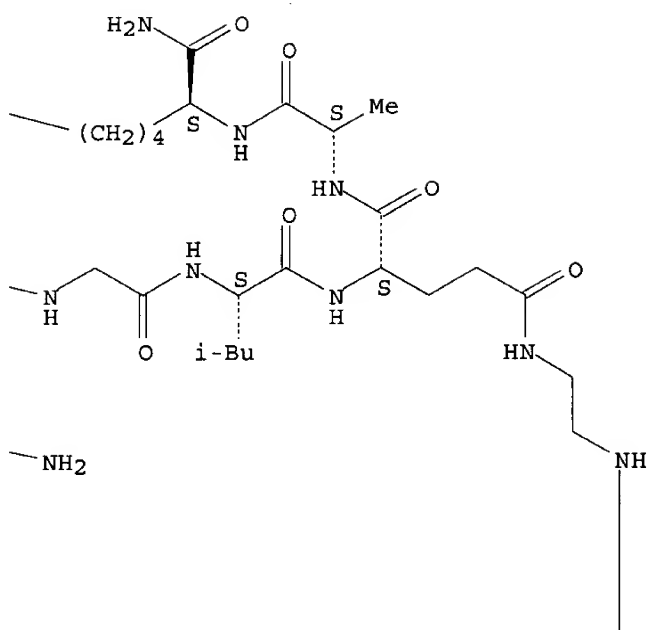
CN L-Lysinamide, 1-[4-[[4-[[4-(dimethylamino)phenyl]azo]benzoyl]amino]-1-oxobutyl]-L-prolyl-L-glutaminyglycyl-L-leucyl-N-[2-[(5-sulfo-1-naphthalenyl)amino]ethyl]-L-glutaminy-L-alanyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

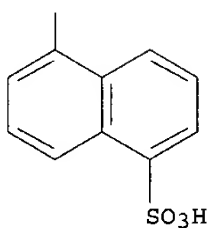


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PAGE 1-B



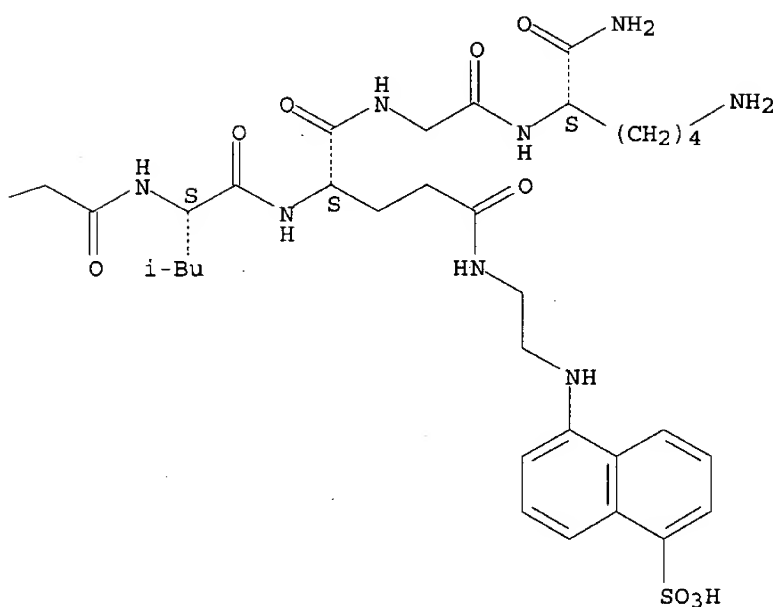
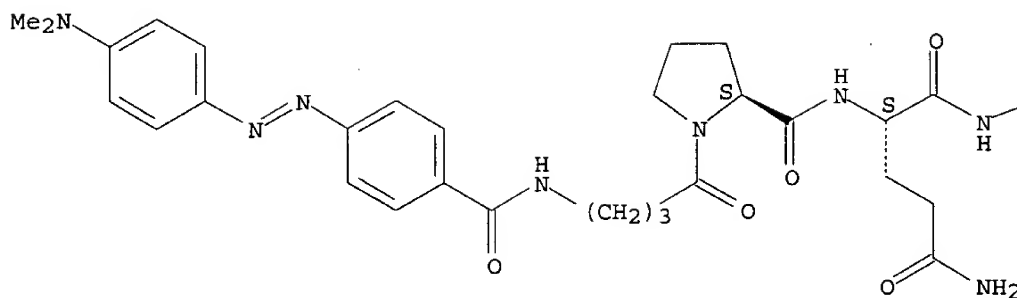
PAGE 2-B



RN 193475-72-8 CAPLUS

CN L-Lysinamide, 1-[4-[[4-[[4-(dimethylamino)phenyl]azo]benzoyl]amino]-1-oxobutyl]-L-prolyl-L-glutaminyglycyl-L-leucyl-N-[2-[(5-sulfo-1-naphthalenyl)amino]ethyl]-L-glutaminyglycyl- (9CI) (CA INDEX NAME)

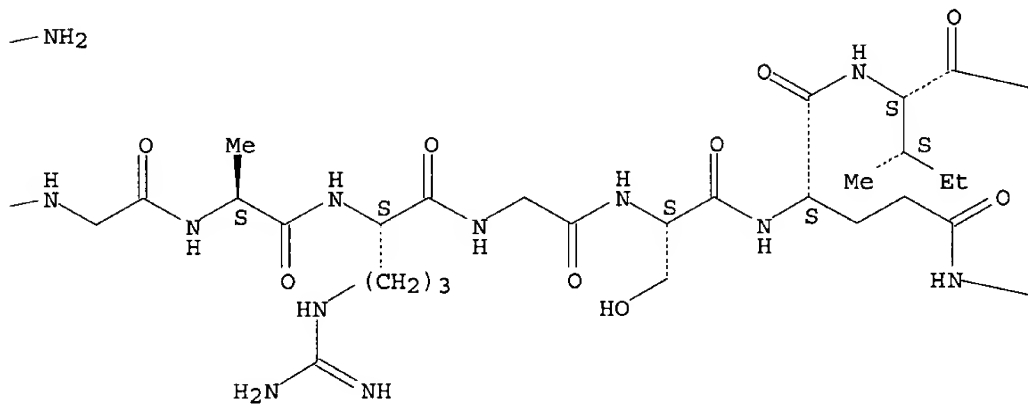
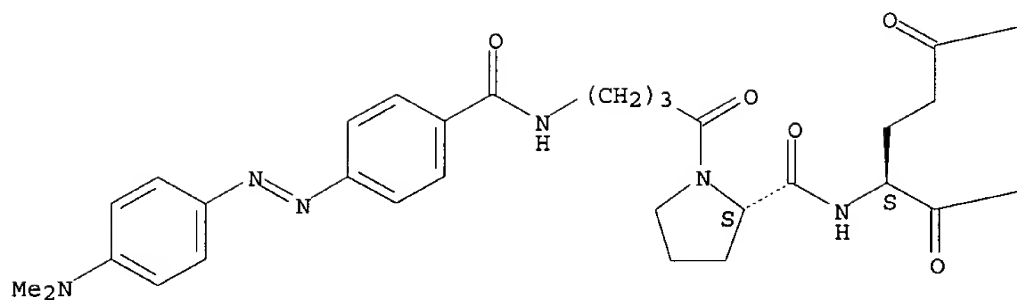
Absolute stereochemistry.
Double bond geometry unknown.



RN 193475-73-9 CAPLUS

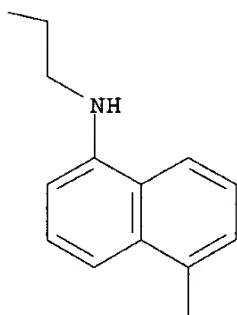
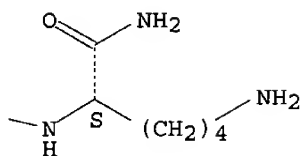
CN L-Lysinamide, 1-[4-[[4-[[4-(dimethylamino)phenyl]azo]benzoyl]amino]-1-oxobutyl]-L-prolyl-L-glutaminyglycyl-L-alanyl-L-argininyglycyl-L-seryl-N-[2-[(5-sulfo-1-naphthalenyl)amino]ethyl]-L-glutaminy-L-isoleucyl- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.



09567863

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PAGE 2 - C

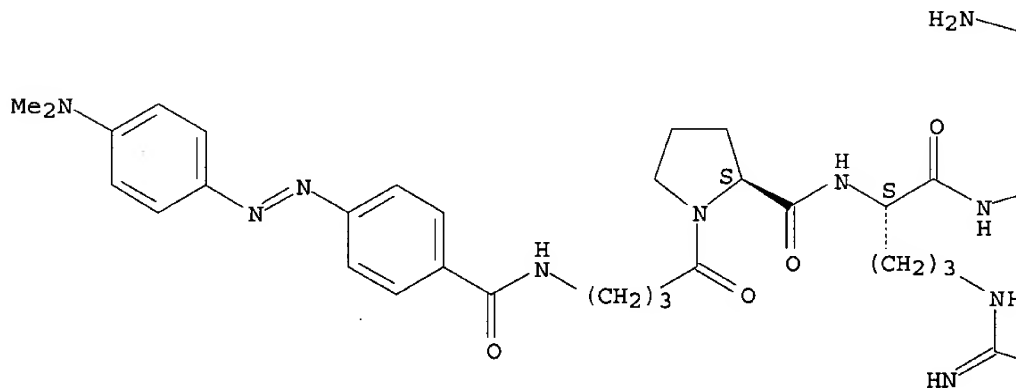


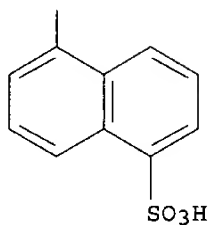
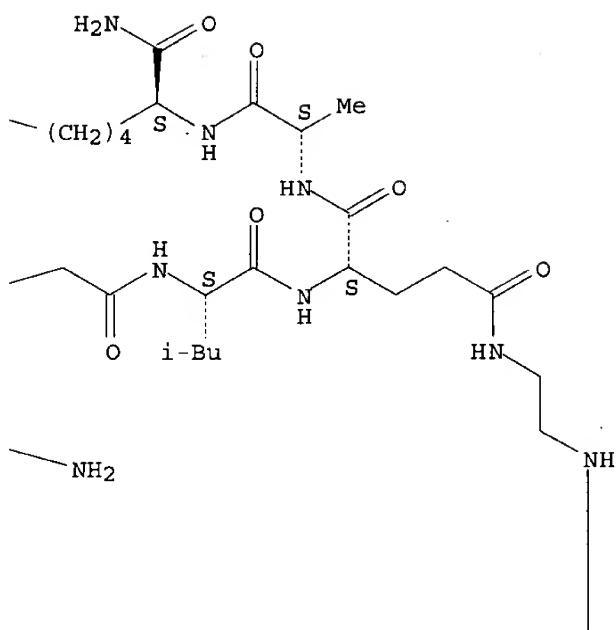
RN 193475-74-0 CAPLUS

CN L-Lysinamide, 1-[4-[[4-[[4-(dimethylamino)phenyl]azo]benzoyl]amino]-1-oxobutyl]-L-prolyl-L-arginylglycyl-L-leucyl-N-[2-[(5-sulfo-1-naphthalenyl)amino]ethyl]-L-glutaminy-L-alanyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

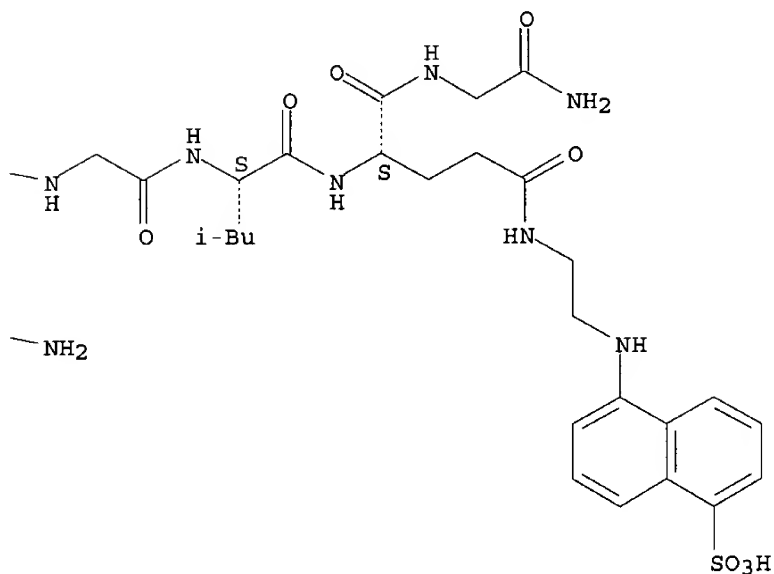
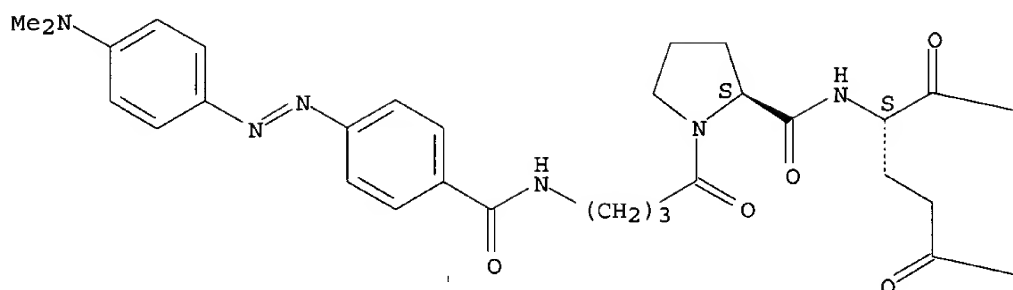
PAGE 1-A





RN 193475-75-1 CAPLUS
 CN Glycinamide, 1-[4-[[4-[[4-(dimethylamino)phenyl]azo]benzoyl]amino]-1-oxobutyl]-L-prolyl-L-glutaminylglycyl-L-leucyl-N-[2-[(5-sulfo-1-naphthalenyl)amino]ethyl]-L-glutaminyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry unknown.



L5 ANSWER 79 OF 96 CAPLUS COPYRIGHT 2003 ACS

AN 1997:430807 CAPLUS

DN 127:145671

TI A closed tube format for amplification and detection of DNA based on energy transfer

AU Nazarenko, I. A.; Bhatnagar, S. K.; Hohman, R. J.

CS Oncor, Inc., Gaithersburg, MD, 20877, USA

SO Nucleic Acids Research (1997), 25(12), 2516-2521

CODEN: NARHAD; ISSN: 0305-1048

PB Oxford University Press

DT Journal

LA English

AB A new method for the direct detection of PCR-amplified DNA in a closed system is described. The method is based on the incorporation of energy transfer-labeled primers into the amplification product. The PCR primers contain hairpin structure on their 5' ends with donor and acceptor

moieties located in close proximity on the hairpin stem. The primers are designed in such a way that a fluorescent signal is generated only when the primers are incorporated into an amplification product. A signal to background ratio of 35:1 was obtained using the hairpin primers labeled with fluorescein as a donor and 4-(4'-dimethylaminophenylazo) benzoic acid (DABCYL) as a **quencher**. The modifier hairpin-primers do not interfere with the activity of DNA polymerase, and both thermostable Pfu and Taq polymerase can be used. This method was applied to the detection of cDNA for prostate specific antigen. The results demonstrate that the fluorescent intensity of the amplified product correlates with the amt. of incorporated primers, and as few as 10 mols. of the initial template can be detected. This technol. eliminates the risk of carry-over contamination, simplifies the amplification assay and opens up new possibilities for the real-time quantification of the amplified DNA over an extremely wide dynamic range.

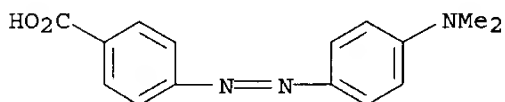
IT 6268-49-1, DABCYL

RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)

(closed tube format for amplification and detection of DNA based on energy transfer)

RN 6268-49-1 CAPLUS

CN Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)



L5 ANSWER 80 OF 96 CAPLUS COPYRIGHT 2003 ACS

AN 1997:44744 CAPLUS

DN 126:55933

TI Dual-conformation oligonucleotide probes carrying conformation-sensitive labels and their use as analytical reagents

IN Tyagi, Sanjay; Kramer, Fred R.; Lizardi, Paul M.

PA Public Health Research Institute of the City of New York, Inc., USA

SO Eur. Pat. Appl., 41 pp.

CODEN: EPXXDW

DT Patent

LA English

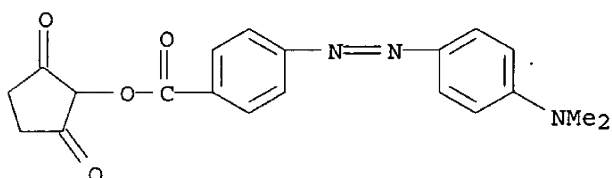
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 745690	A2	19961204	EP 1996-303544	19960513
	EP 745690	A3	20011219		
	R: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
	US 5925517	A	19990720	US 1995-439819	19950512
PRAI	US 1995-439819	A	19950512		
	US 1993-152006	B2	19931112		

AB Unimol. and bimol. hybridization probes for the detection of nucleic acid target sequences have three components: a sequence for detection of the target; a pair of groups (an affinity pair) that hold the probe in a closed conformation in the absence of target sequence, and either a label pair that interacts when the probe is in the closed conformation or, for certain unimol. probes, a non-interactive label. Hybridization of the target and target complement sequences shifts the probe to an open conformation. When the label pair is a fluorescent moiety and a **quencher**, hybridization is detected by increased fluorescence. The preferred fluorescent moiety is EDANS and the preferred quenching moiety

is DABCYL. The shift is detectable due to reduced interaction of the label pair or by detecting a signal from a non-interactive label. Certain unimol. probes can discriminate between target and non-target sequences differing by as little as one nucleotide. The affinity pair is most often a pair of sequences that form a stem. Universal stems and kits useful for constructing these probes are described. Also, assays utilizing said probes and kits for performing such assays. Also, such probes capable of allelic discrimination. Reconstruction expts. are used to demonstrate the method.

IT **185253-85-4D**, reaction products with oligonucleotides
 RL: ARU (Analytical role, unclassified); RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent)
 (dual-conformation oligonucleotide probes carrying conformation-sensitive labels and their use as anal. reagents)
 RN 185253-85-4 CAPLUS
 CN Benzoic acid, 4-[[4-(dimethylamino)phenyl]azo]-, 2,5-dioxocyclopentyl ester (9CI) (CA INDEX NAME)



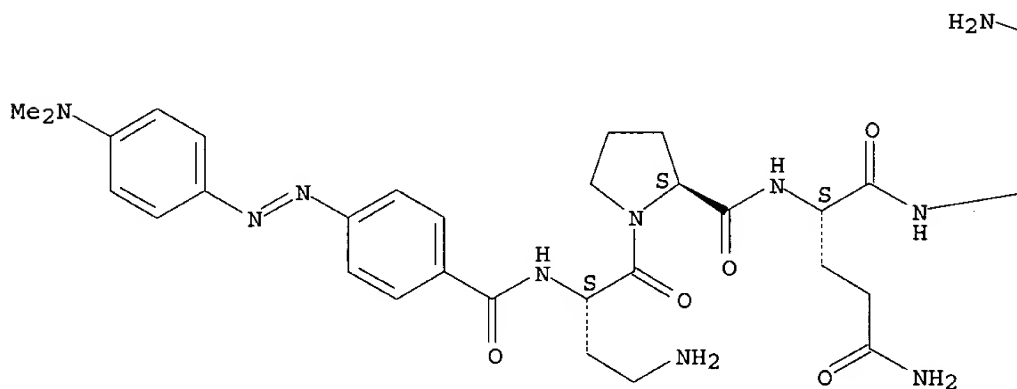
L5 ANSWER 81 OF 96 CAPLUS COPYRIGHT 2003 ACS
 AN 1996:484903 CAPLUS
 DN 125:188969
 TI Convenient fluorometric assay for matrix metalloproteinase activity and its application in biological media
 AU Beekman, Bob; Drijfhout, Jan Wouter; Bloemhoff, Willem; Ronday, H. Karel; Tak, Paul Peter; te Koppele, Johan M.
 CS Gaubius Lab., TNO Prevention and Health, Leiden, 2301 CE, Neth.
 SO FEBS Letters (1996), 390(2), 221-225
 CODEN: FEBLAL; ISSN: 0014-5793
 PB Elsevier
 DT Journal
 LA English
 AB Matrix metalloproteinases (MMPs) are involved in physiol. tissue remodeling and pathol. conditions like tumor metastasis and joint destruction. Until now, no convenient and sensitive MMP activity assay in crude media, such as synovial fluid, has been available. Therefore, the highly sol. fluorogenic substrate TNO 211 (Dabcyl-Gaba-Pro-Gln-Gly-Leu-Glu(EDANS)-Ala-Lys-NH₂), contg. the MMP cleavable Gly-Leu bond and EDANS/Dabcyl as fluorophore/**quencher** combination, was synthesized and characterized as an MMP specific substrate. It was shown that the fluorogenic assay using TNO 211 was sensitive and could detect MMP activity in culture medium from endothelial cells and untreated synovial fluid (SF) from rheumatoid arthritis (RA) and osteoarthritis (OA) patients, and control (C) subjects. MMP activity in SF significantly increased in the order C < OA < RA; thus, the frequent use of OA samples as control in studies on RA is debatable.
 IT **180717-84-4**, TNO 211
 RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
 (convenient fluorometric assay for matrix metalloproteinase activity and its application in biol. media and studies on arthritis)
 RN 180717-84-4 CAPLUS
 CN L-Lysinamide, (2S)-4-amino-2-[[4-[[4-(dimethylamino)phenyl]azo]benzoyl]ami

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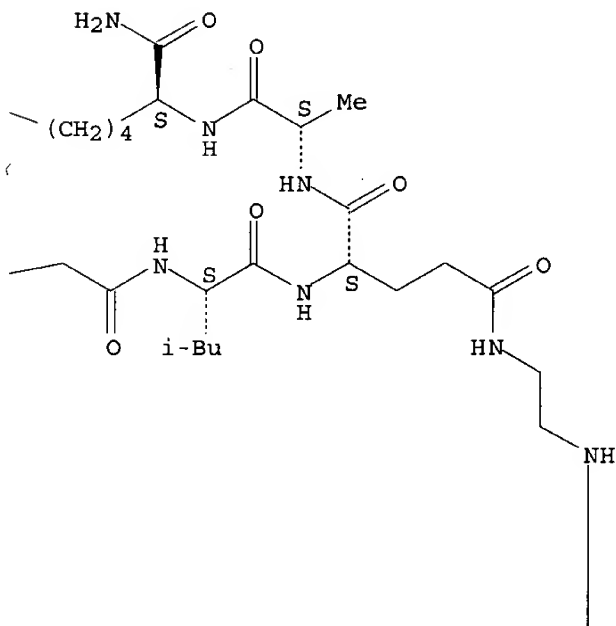
no]butanoyl-L-prolyl-L-glutaminyglycyl-L-leucyl-N-[2-[(5-sulfo-1-naphthalenyl)amino]ethyl]-L-glutaminyl-L-alanyl- (9CI) (CA INDEX NAME)

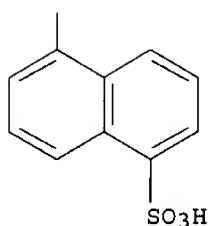
Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A



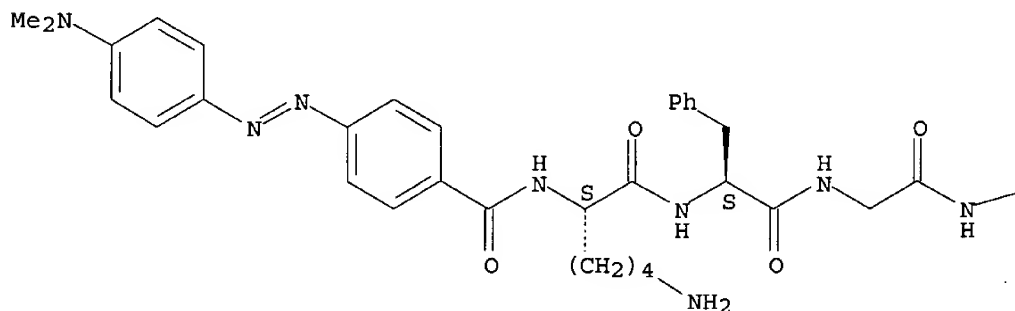
PAGE 1-B

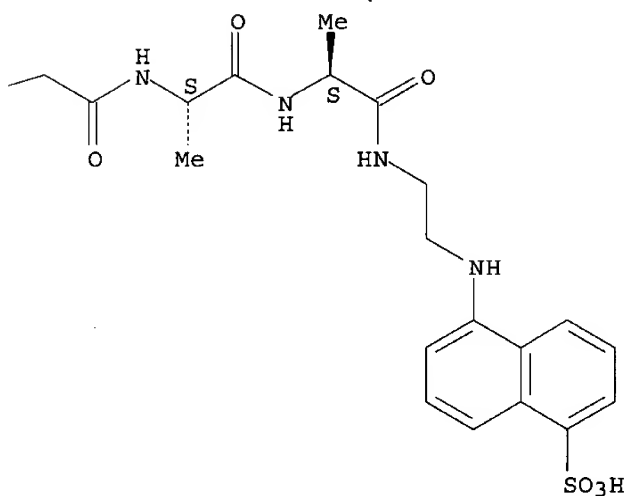
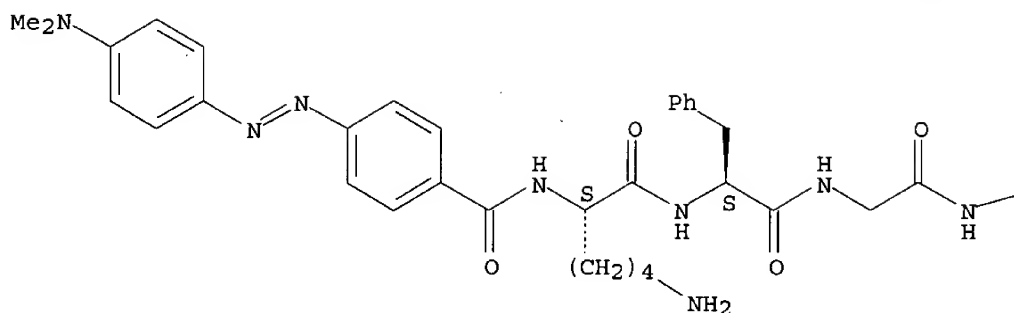




L5 ANSWER 82 OF 96 CAPLUS COPYRIGHT 2003 ACS
 AN 1995:889311 CAPLUS
 DN 123:333569
 TI Kinetic studies of papain: effect of P3' substituents and donor/acceptor pairs of intramolecularly quenched fluorogenic substrates
 AU Garcia-Echeverria, Carlos; Rich, Daniel H.
 CS School Pharmacy, Univ. Wisconsin-Madison, Madison, WI, 53706, USA
 SO Letters in Peptide Science (1995), 2(2), 77-82
 CODEN: LPSCEM; ISSN: 0929-5666
 PB ESCOM
 DT Journal
 LA English
 AB Two series of intramol. quenched fluorogenic oligopeptide substrates with the general sequences DABCYL-Lys-Phe-Gly-Gly-Ala-Xxx-EDANS and Abz-Lys-Phe-Gly-Gly-Ala-Xxx-Tyr(m-NO2)-NH2 were used to explore the effect of P3' substituent and donor/acceptor pairs on the kinetic parameters for papain-catalyzed hydrolysis [DABCYL = 4-(4-dimethylaminophenylazo)benzoic acid; EDANS = 5-[(2-aminoethyl)amino]naphthalene-1-sulfonic acid; and Abz = anthranilamide]. The steady-state consts. were moderately affected by amino acid or fluorophore/**quencher** replacement. No correlation between the hydrophobicity of the P3' substituent and the kinetic parameters was found.
 IT 140888-91-1 170515-25-0 170515-26-1
 170515-27-2 170515-28-3
 RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PROC (Process)
 (kinetic studies of papain: effect of P3' substituents and donor/acceptor pairs of intramolecularly quenched fluorogenic substrates)
 RN 140888-91-1 CAPLUS
 CN L-Alaninamide, N2-[4-[[4-(dimethylamino)phenyl]azo]benzoyl]-L-lysyl-L-phenylalanylglycylglycyl-L-alanyl-N-[2-[(5-sulfo-1-naphthalenyl)amino]ethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry unknown.

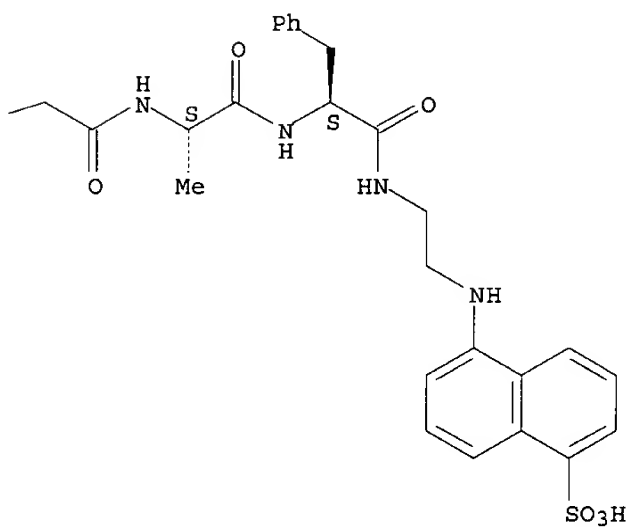
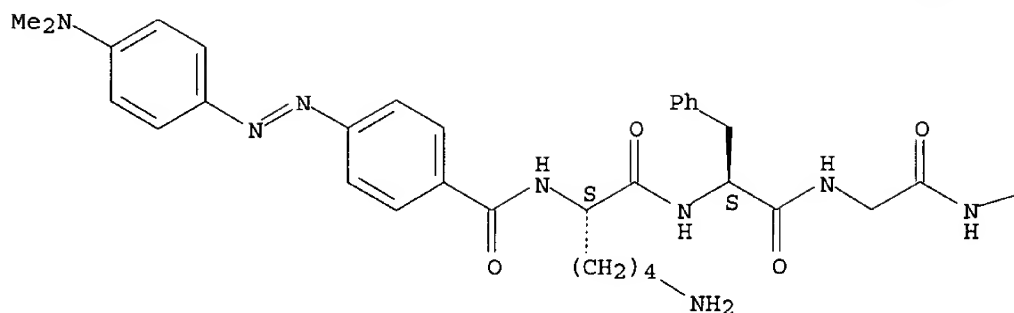




RN 170515-25-0 CAPLUS

CN L-Phenylalaninamide, N2-[4-[[4-(dimethylamino)phenyl]azo]benzoyl]-L-lysyl-L-phenylalanylglycylglycyl-L-alanyl-N-[2-[(5-sulfo-1-naphthalenyl)amino]ethyl]- (9CI) (CA INDEX NAME)

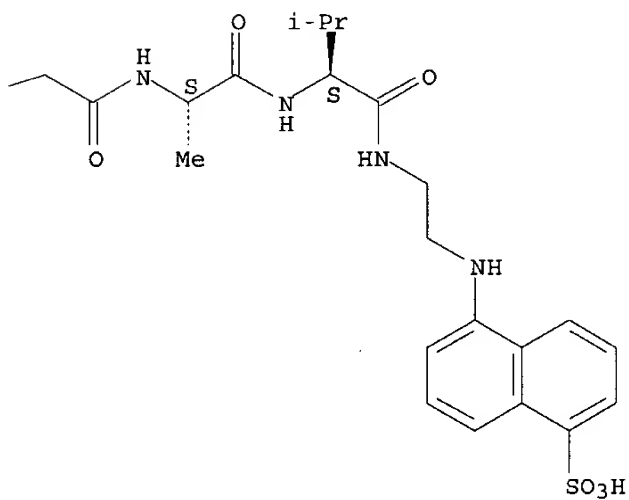
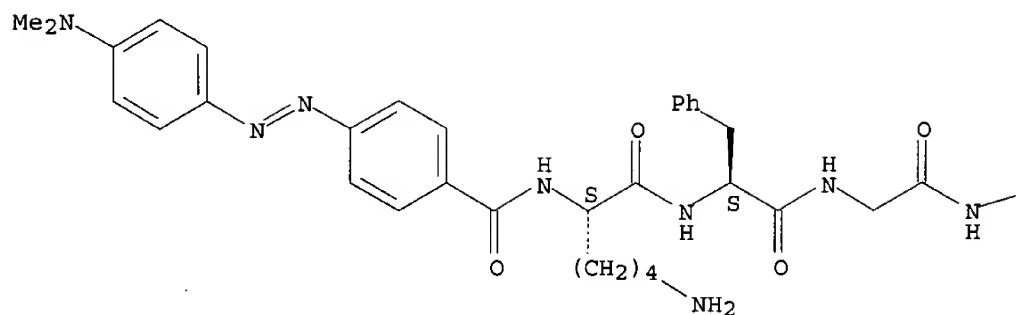
Absolute stereochemistry.
Double bond geometry unknown.



RN 170515-26-1 CAPLUS

CN L-Valinamide, N2-[4-[[4-(dimethylamino)phenyl]azo]benzoyl]-L-lysyl-L-phenylalanylglycylglycyl-L-alanyl-N-[2-[(5-sulfo-1-naphthalenyl)amino]ethyl]- (9CI) (CA INDEX NAME)

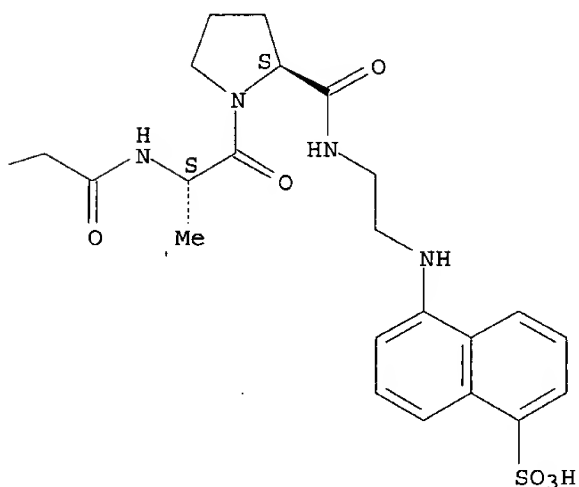
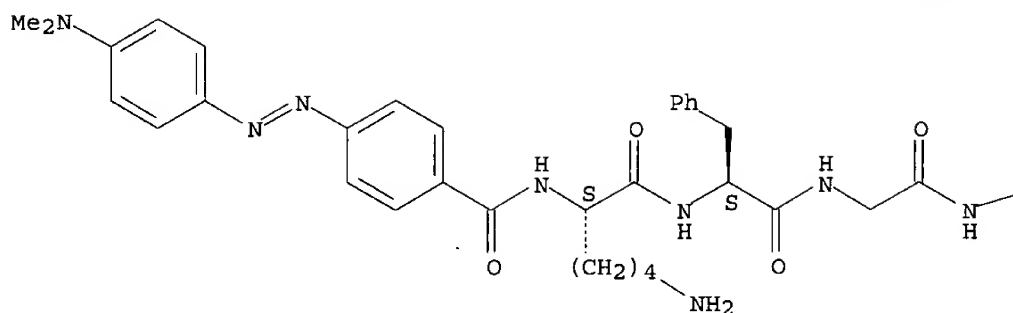
Absolute stereochemistry.
Double bond geometry unknown.



RN 170515-27-2 CAPLUS

CN L-Prolinamide, N2-[4-[[4-(dimethylamino)phenyl]azo]benzoyl]-L-lysyl-L-phenylalanylglycylglycyl-L-alanyl-N-[2-[(5-sulfo-1-naphthalenyl)amino]ethyl]- (9CI) (CA INDEX NAME)

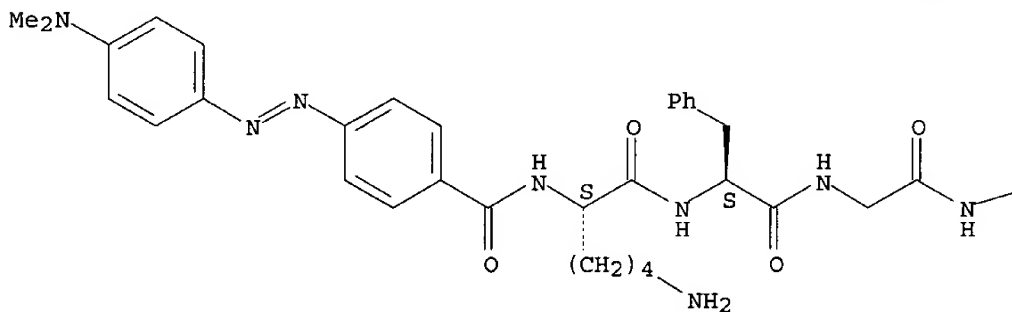
Absolute stereochemistry.
Double bond geometry unknown.

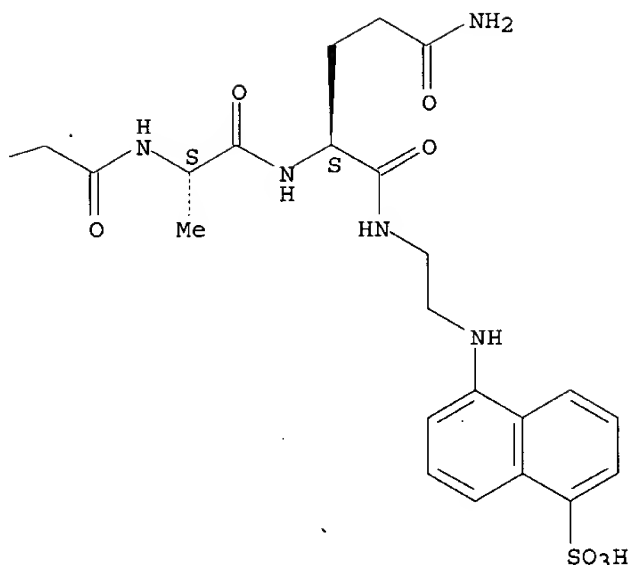


RN 170515-28-3 CAPLUS

CN L-Glutamamide, N2-[4-[[4-(dimethylamino)phenyl]azo]benzoyl]-L-lysyl-L-phenylalanylglycylglycyl-L-alanyl-N1-[2-[(5-sulfo-1-naphthalenyl)amino]ethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.





L5 ANSWER 83 OF 96 CAPLUS COPYRIGHT 2003 ACS

AN 1995:673547 CAPLUS

DN 123:314491

TI Design and synthesis of a quenched fluorogenic peptide substrate for human cytomegalovirus proteinase

AU Handa, B. K.; Keech, E.; Conway, E. A.; Broadhurst, A.; Ritchie, A.

CS Dep. Physical Methods, Roche Products Limited, Welwyn Garden City, Hertfordshire, AL7 3AY, UK

SO Antiviral Chemistry & Chemotherapy (1995), 6(4), 255-61

CODEN: ACCHEH; ISSN: 0956-3202

PB Blackwell

DT Journal

LA English

AB A fluorogenic peptide substrate for human cytomegalovirus proteinase was synthesized by solid-phase peptide synthesis. The amino acid sequence of this substrate is derived from the maturation cleavage site (M site) of the natural substrate, the assembly protein precursor. The min. sequence for efficient cleavage requires at least seven residues (P4-P3'). A systematic modification of the peptide substrate was carried out to identify positions suitable for the introduction of the fluorescent donor and the **quencher** acceptor groups.

IT 170159-66-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(design and synthesis of quenched fluorogenic peptide substrate for human cytomegalovirus proteinase)

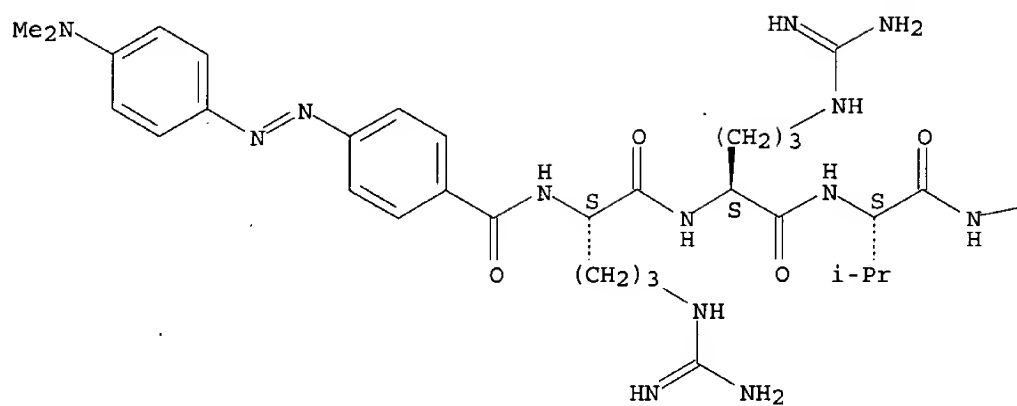
RN 170159-66-7 CAPLUS

CN L-Aspartamide, N2-[4-[[4-(dimethylamino)phenyl]azo]benzoyl]-L-arginyl-L-arginyl-L-valyl-L-valyl-L-asparaginyl-L-alanyl-L-seryl-L-2-aminobutanoyl-L-arginyl-L-leucyl-N4-[2-[(5-sulfo-1-naphthalenyl)amino]ethyl]- (9CI) (CA INDEX NAME)

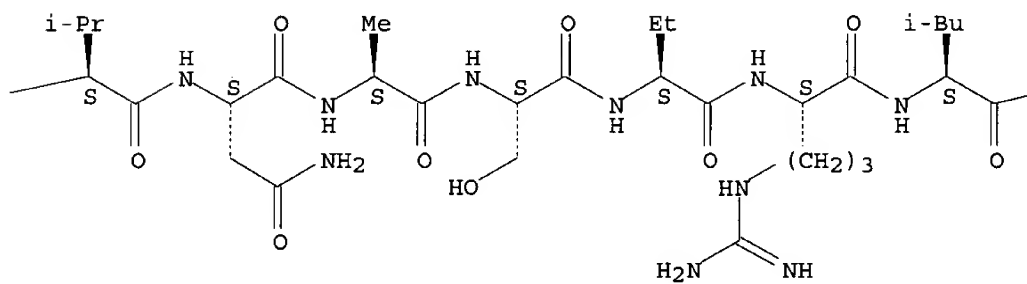
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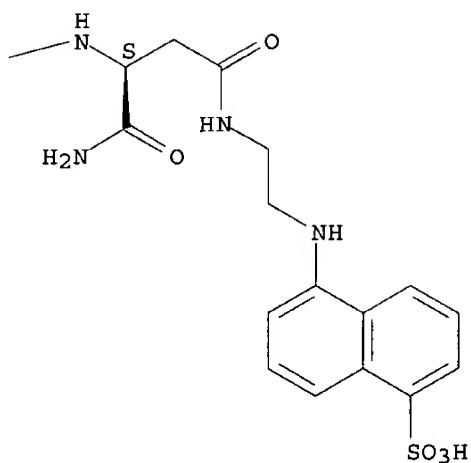
Absolute stereochemistry.
Double bond geometry unknown.

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PAGE 1-B





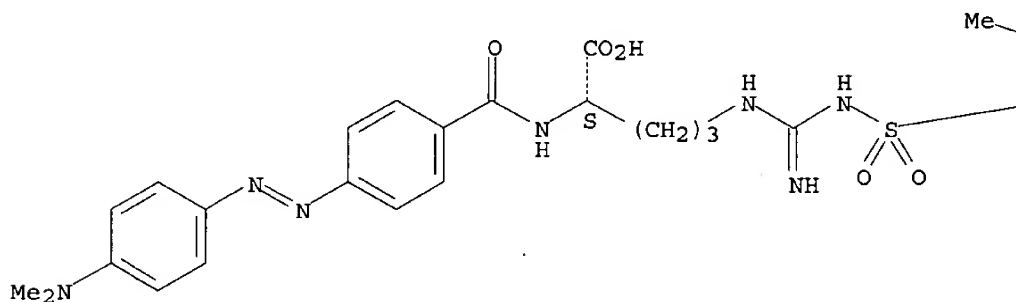
IT 170159-67-8

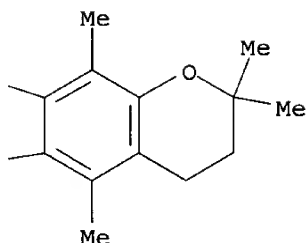
RL: RCT (Reactant); RACT (Reactant or reagent)
 (design and synthesis of quenched fluorogenic peptide substrate for
 human cytomegalovirus proteinase)

RN 170159-67-8 CAPLUS

CN L-Ornithine, N5-[[[(3,4-dihydro-2,2,5,7,8-pentamethyl-2H-1-benzopyran-6-yl)sulfonyl]amino]iminomethyl]-N2-[4-[[4-(dimethylamino)phenyl]azo]benzoyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry unknown.



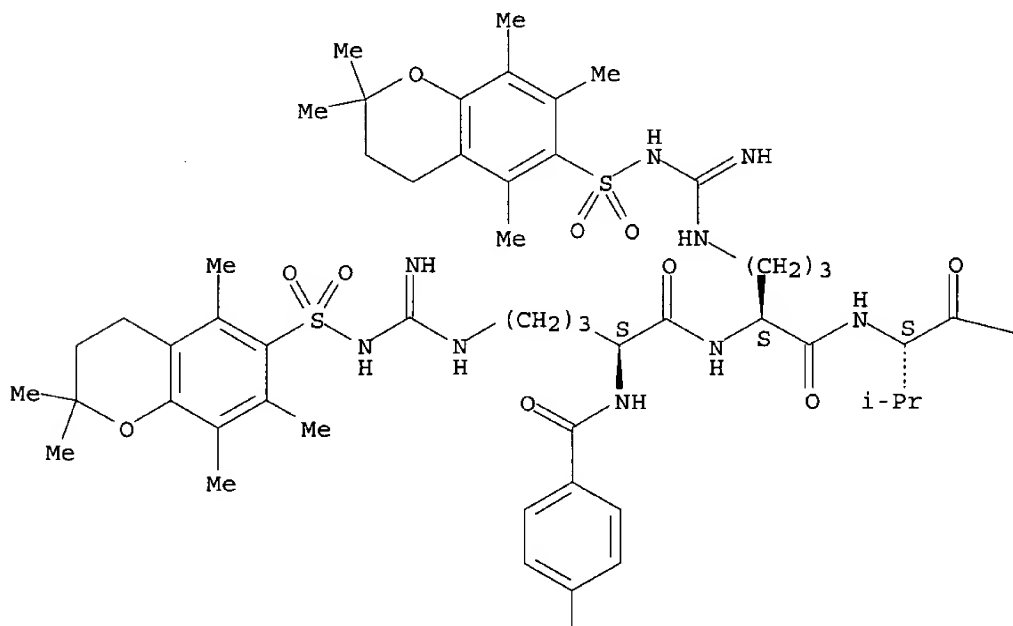


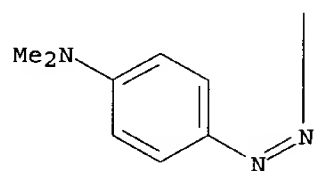
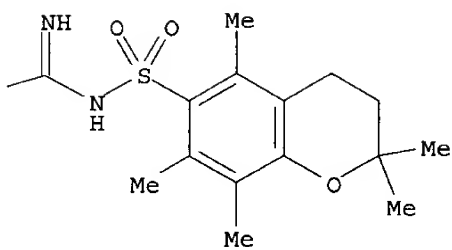
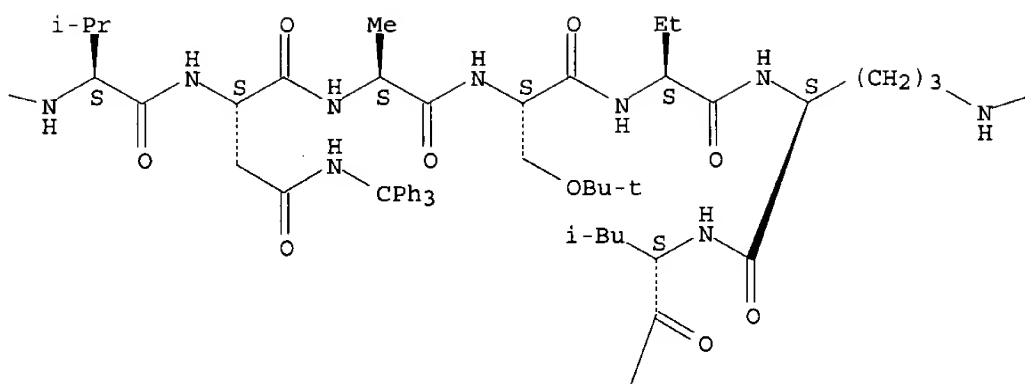
IT 170159-64-5DP, resin-bound 170159-65-6DP, resin-bound
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (design and synthesis of quenched fluorogenic peptide substrate for
 human cytomegalovirus proteinase)

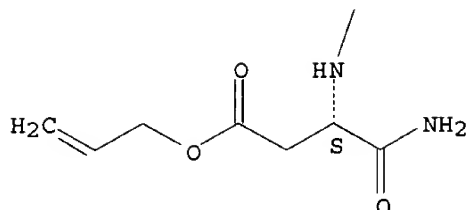
RN 170159-64-5 CAPLUS

CN L-.alpha.-Asparagine, N5-[[[(3,4-dihydro-2,2,5,7,8-pentamethyl-2H-1-benzopyran-6-yl)sulfonyl]amino]iminomethyl]-N2-[4-[4-(dimethylamino)phenyl]azo]benzoyl]-L-ornithyl-N5-[[[(3,4-dihydro-2,2,5,7,8-pentamethyl-2H-1-benzopyran-6-yl)sulfonyl]amino]iminomethyl]-L-ornithyl-L-valyl-L-valyl-N-(triphenylmethyl)-L-asparaginyl-L-alanyl-O-(1,1-dimethylethyl)-L-seryl-L-2-aminobutanoyl-N5-[[[(3,4-dihydro-2,2,5,7,8-pentamethyl-2H-1-benzopyran-6-yl)sulfonyl]amino]iminomethyl]-L-ornithyl-L-leucyl-, 2-propenyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry unknown.



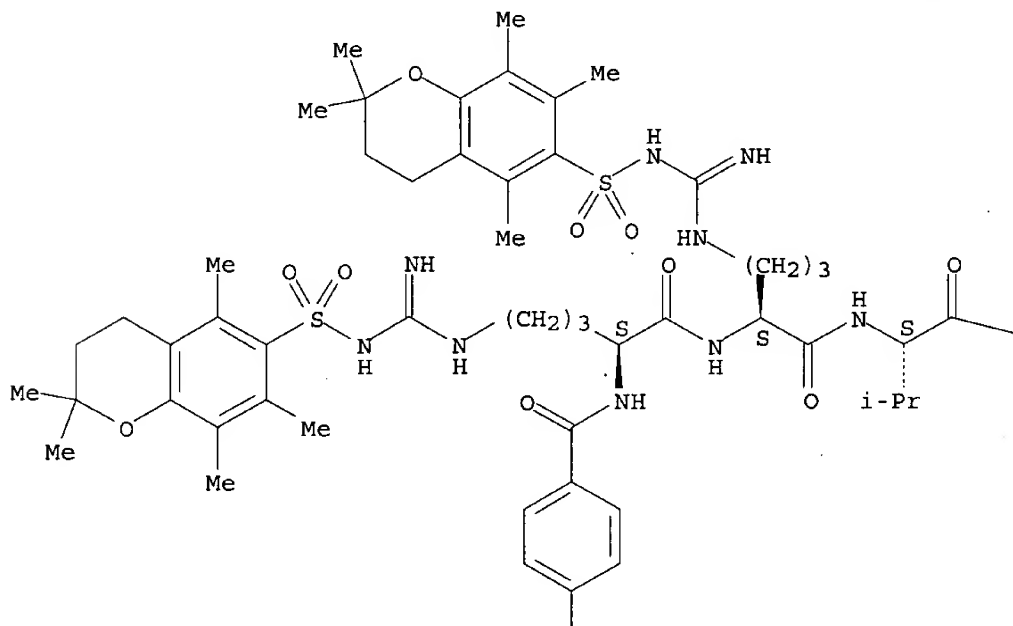


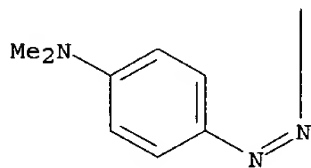
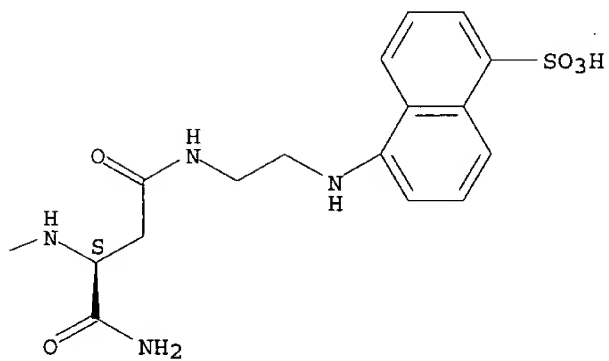
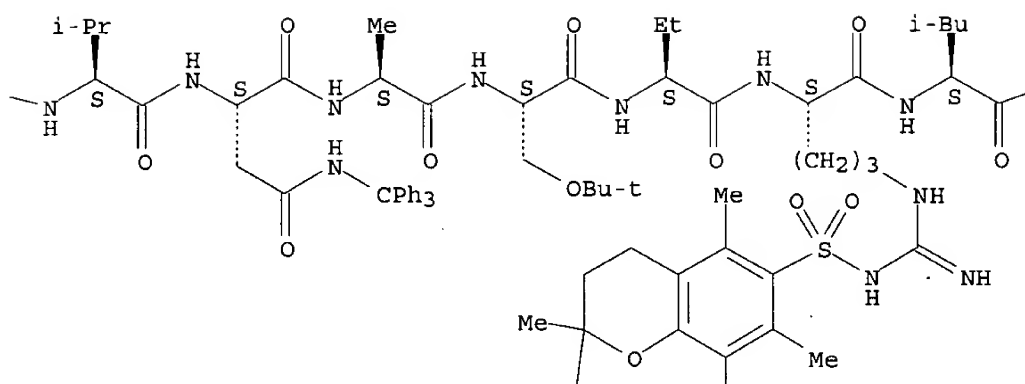


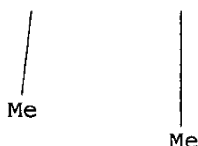
RN 170159-65-6 CAPLUS

CN L-Aspartamide, N5-[[[(3,4-dihydro-2,2,5,7,8-pentamethyl-2H-1-benzopyran-6-yl)sulfonyl]amino]iminomethyl]-N2-[4-[[4-(dimethylamino)phenyl]azo]benzoyl]-L-ornithyl-N5-[[[(3,4-dihydro-2,2,5,7,8-pentamethyl-2H-1-benzopyran-6-yl)sulfonyl]amino]iminomethyl]-L-ornithyl-L-valyl-L-valyl-N-(triphenylmethyl)-L-asparaginyl-L-alanyl-O-(1,1-dimethylethyl)-L-seryl-L-2-aminobutanoyl-N5-[[[(3,4-dihydro-2,2,5,7,8-pentamethyl-2H-1-benzopyran-6-yl)sulfonyl]amino]iminomethyl]-L-ornithyl-L-leucyl-N4-[2-[(5-sulfo-1-naphthalenyl)amino]ethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.







L5 ANSWER 84 OF 96 CAPLUS COPYRIGHT 2003 ACS

AN 1993:81808 CAPLUS

DN 118:81808

TI Counterion diffusion in bulk ionomers. 1. Fluorescence study of the diffusion of benzylammonium and N,N-dimethylbenzylammonium in polymethacrylates carrying sulfonic acid substituents

AU Vyprachticky, Drahomir; Morawetz, Herbert; Fainzilberg, Vladimir

CS Dep. Chem., Polytech. Univ., Brrokyln, NY, 11201, USA

SO Macromolecules (1993), 26(2), 339-43

CODEN: MAMOBX; ISSN: 0024-9297

DT Journal

LA English

AB The diffusion of benzylammonium (I) and dimethylbenzylammonium (II) counterions from films of polymethacrylate ionomers with small nos. of partially neutralized sulfonic acid side chains into a pellet of a similar unneutralized polymer contg. a fluorescence **quencher** was monitored by following the decreasing emission intensity. The diffusion coeffs., D, were compared with those of the unprotonated bases benzylamine and dibenzylamine (III) in polymers carrying no sulfonic acid groups. The D in the ionomers were much smaller, since the part of the counterions forming ion pairs with polymer-bound sulfonates made a negligible contribution to the diffusion. II diffused more than twice as fast as I since ion pairs formed by the tertiary amine were more highly dissoecd. The temp. dependence of D for III in poly(Et methacrylate) (IV) and poly(Bu methacrylate) (V) followed the WLF equation, but that of II in the corresponding polymers carrying a small no. of sulfonic groups was much steeper. This was attributed to the addnl. activation energy for the diffusion of the protonated bases due to the activation energy for the dissoecn. of the ion pairs. The degree of ion-pair dissoecn. inferred from the relative D value of II and III increased with increasing polarity of the polymer in the order V < IV < Me acrylate-Me methacrylate copolymer.

IT 145898-17-5 145898-18-6

RL: PRP (Properties)

(diffusion of benzylammonium and dimethylbenzylammonium ions and benzylamine and dibenzylamine through)

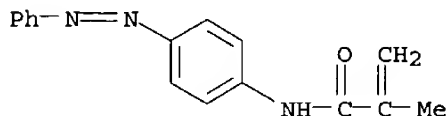
RN 145898-17-5 CAPLUS

CN 2-Propenoic acid, 2-methyl-, propyl ester, polymer with 2-methyl-N-[4-(phenylazo)phenyl]-2-propenamide and methyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 2615-08-9

CMF C16 H15 N3 O

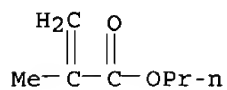


09567863

CM 2

CRN 2210-28-8

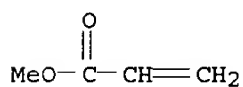
CMF C7 H12 O2



CM 3

CRN 96-33-3

CMF C4 H6 O2



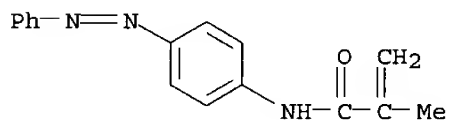
RN 145898-18-6 CAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with
2-methyl-N-[4-(phenylazo)phenyl]-2-propenamide and methyl 2-propenoate
(9CI) (CA INDEX NAME)

CM 1

CRN 2615-08-9

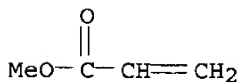
CMF C16 H15 N3 O



CM 2

CRN 96-33-3

CMF C4 H6 O2

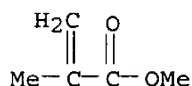


CM 3

CRN 80-62-6

CMF C5 H8 O2

09567863



L5 ANSWER 85 OF 96 CAPLUS COPYRIGHT 2003 ACS
AN 1992:140217 CAPLUS
DN 116:140217
TI Optical recording media
IN Shinkai, Masahiro; Inoue, Tetsuji; Nanba, Noriyoshi; Nanba, Noryoshi
PA TDK Corp., Japan
SO Jpn. Kokai Tokkyo Koho, 11 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 03203694	A2	19910905	JP 1989-342989	19891229
	JP 2925121	B2	19990728		
	JP 2838558	B2	19981216	JP 1989-336940	19891226
	EP 385341	A2	19900905	EP 1990-103691	19900226
	EP 385341	A3	19910710		
	EP 385341	B1	20000524		
	R: DE, FR, GB, NL				
PRAI	JP 1989-51556	A	19890303		
	JP 1989-65380	A	19890317		
	JP 1989-93363	A	19890413		
	JP 1989-209127	A	19890811		
	JP 1989-209128	A	19890811		
	JP 1989-227089	A	19890901		
	JP 1989-324245	A	19891214		
	JP 1989-336940	A	19891226		
	JP 1989-342989	A	19891229		
GI					

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The media have recording layer contg. dye with absorption max. at 600-900 nm and azo dye with absorption max at 350-600 nm. The invention includes (a) media with the above recording layer having extinction coeff. k (imaginary part of complex refractive index) 0.05-0.2 in recording and reading wavelength region at 700-900 nm, and a reflective layer on the recording layer, and also includes (b) media having the above recording layer with reflectivity at 700-900 nm range for reading light, which is sealed inside the media, leaving a space. Each recording layer may contain quenchers. The media have very high stability to light. Thus, a dye layer formed on a polycarbonate disk contained dye I (absorption max. 800 nm) 8, dye II (absorption max. 675 nm) 72, Fast Brown RR (III, absorption max. 451 nm) 10, and **quencher** IV 10 wt.%; this layer showed refractive index n = 2.4 (at 780 nm) (real part of complex refractive index), and k = 0.15 (at 780 nm). A Au reflective layer and a UV-cured protective layer were formed on the recording layer. Recording with 780-nm 7 mW laser beam and reading in a disk player produced information with high signal-to-noise ratio. Discoloration by 20-h irradian. by Xe lamp was to 0.90, vs. 0.14 for a ref. disk having a recording layer contg. 10% I and 90% II.

IT 6535-42-8

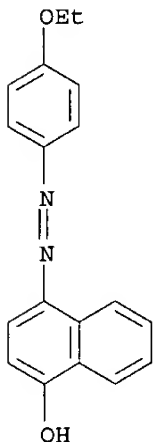
09567863

RL: USES (Uses)

(optical recording media having mixed-dye recording layer contg.)

RN 6535-42-8 CAPLUS

CN 1-Naphthalenol, 4-[(4-ethoxyphenyl)azo]- (9CI) (CA INDEX NAME)



L5 ANSWER 86 OF 96 CAPLUS COPYRIGHT 2003 ACS

AN 1992:101490 CAPLUS

DN 116:101490

TI Fluorogenic bimane substrates with dabsyl group for endopeptidases; chymotrypsin, collagenase and thermolysin

AU Sato, Eisuke; Hattori, Hiromi; Kanaoka, Yuichi

CS Fac. Pharm. Sci., Hokkaido Univ., Sapporo, 060, Japan

SO Journal of Pharmacobio-Dynamics (1991), 14(10), 599-604

CODEN: JOPHDQ; ISSN: 0386-846X

DT Journal

LA English

AB Fluorescence of 9,10-dioxo-syn-3,4,6,7-tetramethylbimane (bimane) can be quenched in the presence of the dimethylaminoazobenzensulfonyl (dabsyl) group. A new combination of bimane (fluorophor) and dabsyl group (quencher) was applied to syntheses of intramolecularly quenched fluorogenic substrates for hydrolytic enzymes. Bimane peptides contg. a dabsyl group were prepd., and were useful fluorogenic substrates for the assay of endopeptidases such as chymotrypsin, collagenase and thermolysin.

IT 139292-20-9P 139292-21-0P 139292-22-1P

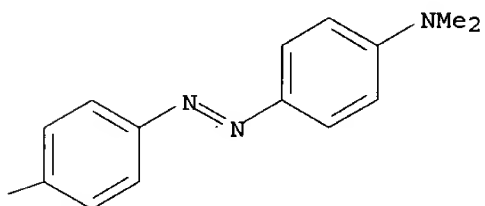
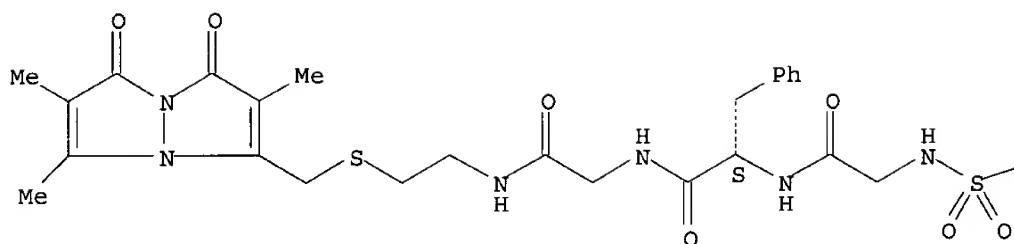
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and endopeptidases detn. using)

RN 139292-20-9 CAPLUS

CN Glycinamide, N-[[4-[[4-(dimethylamino)phenyl]azo]phenyl]sulfonyl]glycyl-L-phenylalanyl-N-[2-[[[2,5,6-trimethyl-1,7-dioxo-1H,7H-pyrazolo[1,2-a]pyrazol-3-yl)methyl]thio]ethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

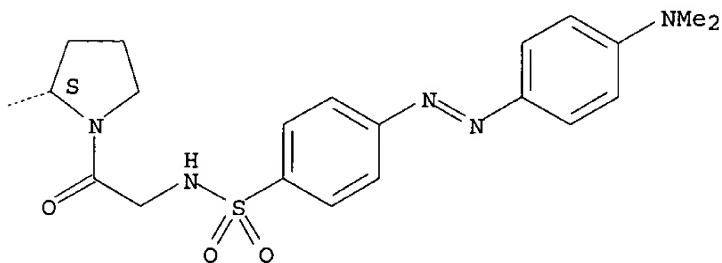
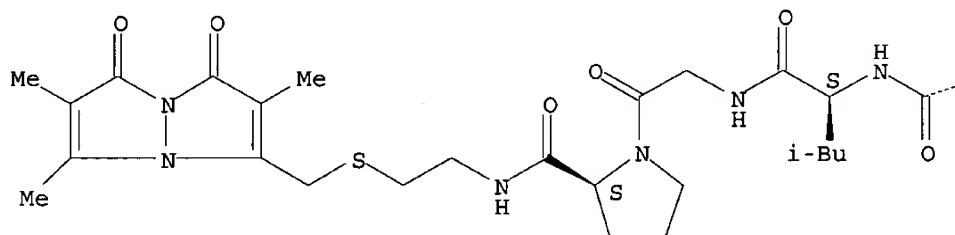
Double bond geometry unknown.



RN 139292-21-0 CAPLUS

CN L-Prolinamide, N-[[4-[[4-(dimethylamino)phenyl]azo]phenyl]sulfonyl]glycyl-L-prolyl-L-leucylglycyl-N-[2-[[2,5,6-trimethyl-1,7-dioxo-1H,7H-pyrazolo[1,2-a]pyrazol-3-yl)methyl]thio]ethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.



RN 139292-22-1 CAPLUS

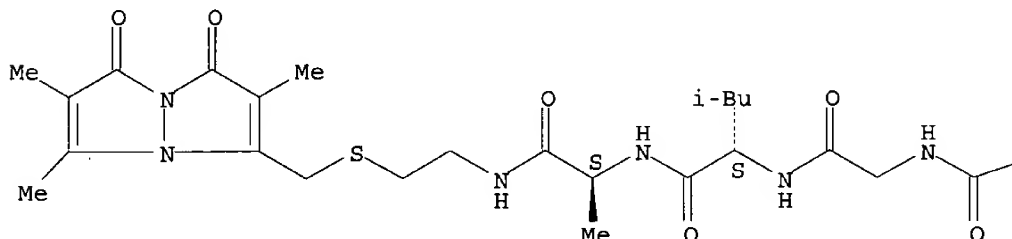
CN L-Alaninamide, N-[[4-[[4-(dimethylamino)phenyl]azo]phenyl]sulfonyl]-L-

09567863

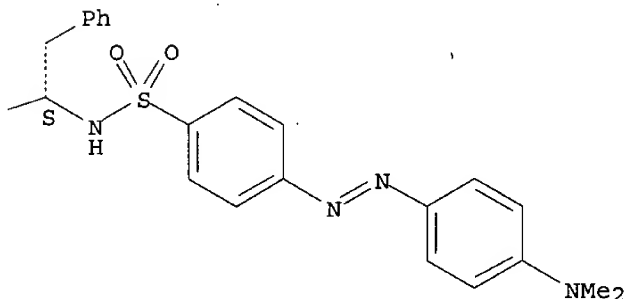
phenylalanylglycyl-L-leucyl-N-[2-[[[(2,5,6-trimethyl-1,7-dioxo-1H,7H-pyrazolo[1,2-a]pyrazol-3-yl)methyl]thio]ethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

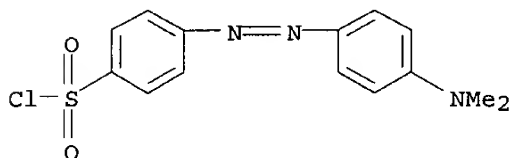
PAGE 1-A



PAGE 1-B



IT 56512-49-3, Dabsyl chloride
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with peptides)
RN 56512-49-3 CAPLUS
CN Benzenesulfonyl chloride, 4-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)



L5 ANSWER 87 OF 96 CAPLUS COPYRIGHT 2003 ACS
AN 1991:516284 CAPLUS
DN 115:116284
TI Inhibition of the biacetyl-sensitized photooxidation of azo dyes
AU Neevel, J. G.; Van Beek, H. C. A.; Van de Graaf, B.
CS Dep. Chem. Technol., Delft Univ. Technol., Delft, 2628 BL, Neth.
SO Journal of the Society of Dyers and Colourists (1991), 107(3), 110-13

09567863

CODEN: JSDCAA; ISSN: 0037-9859

DT Journal

LA English

AB The photooxidn. of azo dyes in the presence of O and biacetyl was inhibited by phenol, Na 1-naphthol-4-sulfonate, the Na salt of naphthionic acid, and the azo dyes themselves. Phosphorescence quenching of biacetyl by these compds. revealed that the inhibition was mainly caused by quenching of its 1st triplet state. Kinetic behavior was investigated by phosphorescence measurements and the inhibition expts. on the systems. The results indicated that there was a possibility that the light fastness properties of dyed substrates contg. carbonyl groups might be improved by adding efficient quenchers for the excited triplet states of these groups.

IT 4321-69-1, C.I. Acid Violet 7 6360-07-2, C.I. Acid Red

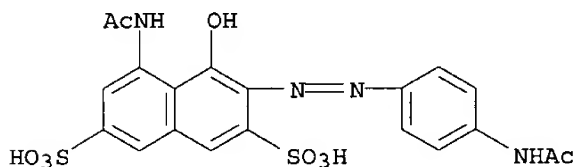
37

RL: USES (Uses)

(biacetyl-sensitized, inhibition of photooxidn. of, triplet-quenching in relation to)

RN 4321-69-1 CAPLUS

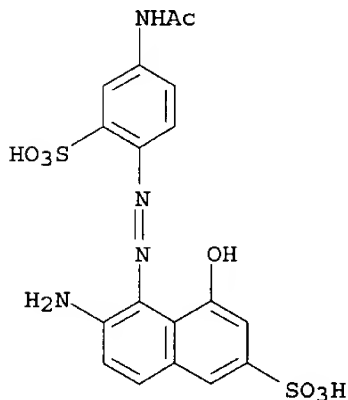
CN 2,7-Naphthalenedisulfonic acid, 5-[(4-(acetylamino)phenyl)azo]-4-hydroxy-, disodium salt (9CI) (CA INDEX NAME)



● 2 Na

RN 6360-07-2 CAPLUS

CN 2-Naphthalenesulfonic acid, 5-[[4-(acetylamino)-2-sulfophenyl]azo]-6-amino-4-hydroxy-, disodium salt (9CI) (CA INDEX NAME)



2 Na

09567863

AN 1991:38373 CAPLUS

DN 114:38373

TI Quenching of tryptophan phosphorescence in Escherichia coli alkaline phosphatase by long-range transfer mechanisms to external agents in the rapid-diffusion limit

AU Mersol, Joseph V.; Steel, Duncan G.; Gafni, Ari

CS Inst. Gerontol., Univ. Michigan, Ann Arbor, MI, 48109, USA

SO Biochemistry (1991), 30(3), 668-75

CODEN: BICHAW; ISSN: 0006-2960

DT Journal

LA English

AB The quenching of the room-temp. phosphorescence of E. coli alk. phosphatase by several freely diffusing mols. was studied, each of whose absorption spectrum overlaps the long-lived emission of this protein and which therefore can quench the excited triplet state by diffusion-enhanced Foerster energy transfer. For each **quencher** the presence of addnl. nonresonance transfer mechanisms was also detected, from a lack of linear dependence of quenching rate on spectral overlap. The quenching agents used were the dye mols., methyl red, methyl orange, and 2-[(4-hydroxyphenyl)azo]benzoic acid, as well as the embedded heme groups of myoglobin, metmyoglobin, and the reduced and oxidized forms of cytochrome c. Quenching was found to be greatly diminished upon redn. of each acceptor, indicating that electron transfer occurs efficiently from the excited tryptophan to the oxidized form of the acceptors. The elimination of this electron transfer in the reduced form afforded the opportunity to sep. measure the Foerster transfer rates for the hemoproteins. When the transfer rate const. thus measured for myoglobin was applied to a model where both donor and acceptor proteins were taken to be spherical with both tryptophan and the heme group placed off center (a model whose quenching rate equation is newly presented here), the depth of the phosphorescent tryptophan beneath the surface of alk. phosphatase was found to be 16 .ANG.. This value was close to the depth of tryptophan-109 (which is known to be the phosphorescent residue in alk. phosphatase), showing that with properly chosen probes this technique is indeed valuable for distance detns. in protein structure studies. The distance calcd. from cytochrome c data was found to vary among different buffers and also to depend on buffer concn., changing from 8 to 12 .ANG. upon increase of Tris HC concn. from 50 mM to 1M. This reflects the need for a model for cytochrome c which better represents its shape and electrostatic properties.

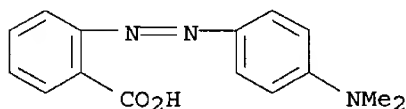
IT 493-52-7, Methyl red 547-58-0, Methyl orange

RL: BIOL (Biological study)

(phosphorescence of tryptophan-109 in alk. phosphatase of Escherichia coli quenching by)

RN 493-52-7 CAPLUS

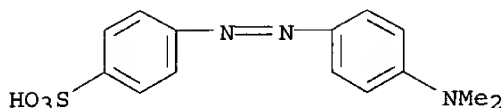
CN Benzoic acid, 2-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)



RN 547-58-0 CAPLUS

CN Benzenesulfonic acid, 4-[[4-(dimethylamino)phenyl]azo]-, sodium salt (9CI)
(CA INDEX NAME)

09567863



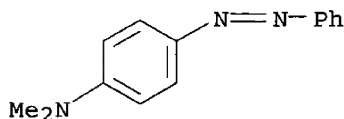
● Na

L5 ANSWER 89 OF 96 CAPLUS COPYRIGHT 2003 ACS
 AN 1986:414010 CAPLUS
 DN 105:14010
 TI Scintillation media and methods of detecting beta ray emissions
 IN Thomson, James
 PA Fisons PLC, UK
 SO Eur. Pat. Appl., 12 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 176281	A2	19860402	EP 1985-306447	19850911
	EP 176281	A3	19881221		
	EP 176281	B1	19910703		
	EP 176281	B2	19971217		
	R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
	AT 64947	E	19910715	AT 1985-306447	19850911
	US 4657696	A	19870414	US 1985-776615	19850916
	US 4657696	B1	19910528	US 1990-90001981	19900402
PRAI	GB 1984-23636		19840919		
	EP 1985-306447		19850911		
	US 1985-776615		19850916		

AB The title medium contains positional isomer(s) of diisopropylnaphthalene (I), which is in liq. phase at 5.degree.. Thus, a scintillation compn. was prepd. from 2,5-diphenyloxazole 3, 1,4-di-(2-methylstyryl)benzene 0.1 g, I 1 L and subjected to test for solvent effect and chem. and color quenching agent effects in .beta.-particle counting. The best efficiency was obtained with I as the solvent. The vol. of the solid soln. of Di-Me Yellow required to reduce the efficiency by 50% with I solvent was 440 .mu.L and the vol. of the chem. quenching agent, CCl4, for reducing the efficiency by 50% was 71.25 .mu.L.

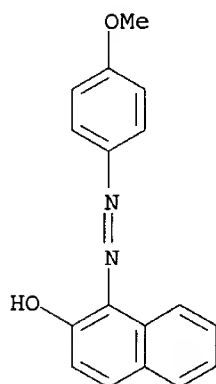
IT 60-11-7
 RL: PROC (Process)
 (scintillator contg. diisopropylnaphthalene affected by color
 quencher from)
 RN 60-11-7 CAPLUS
 CN Benzenamine, N,N-dimethyl-4-(phenylazo)- (9CI) (CA INDEX NAME)



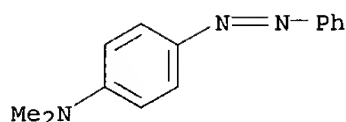
L5 ANSWER 90 OF 96 CAPLUS COPYRIGHT 2003 ACS
 AN 1983:73799 CAPLUS

09567863

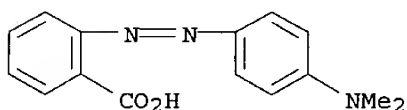
DN 98:73799
TI Contribution of singlet oxygen to the photofading of some dyes
AU Kuramoto, Nobuhiro; Kitao, Teijiro
CS Dep. Chem., Osaka Prefect. Ind. Res. Inst., Osaka, 550, Japan
SO Journal of the Society of Dyers and Colourists (1982), 98(10), 334-40
CODEN: JSDCAA; ISSN: 0037-9859
DT Journal
LA English
OS CASREACT 98:73799
AB The contribution of singlet O to the photofading of 1-(arylaazo)-2-naphthols, indigo [482-89-3], quinophthalones, aminoanthraquinones, triphenylmethanes, and stilbenes in soln. is discussed, and mechanisms for their photofading reactions are proposed. The effect was also studied of singlet O sensitizers and quenchers.
IT 13411-91-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(photofading of, in presence of singlet oxygen)
RN 13411-91-1 CAPLUS
CN 2-Naphthalenol, 1-[(4-methoxyphenyl)azo]- (9CI) (CA INDEX NAME)



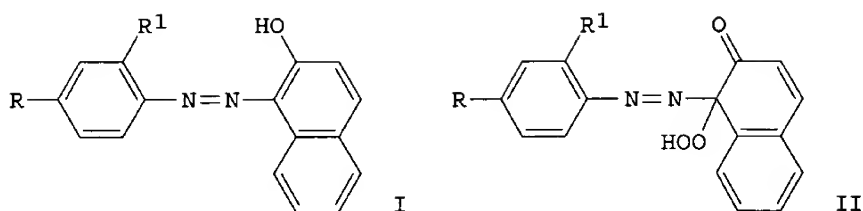
L5 ANSWER 91 OF 96 CAPLUS COPYRIGHT 2003 ACS
AN 1982:446237 CAPLUS
DN 97:46237
TI An advanced quenching correction technique of H-number measurement in liquid scintillation counting
AU Shan, Yifei; Chen, Weijun; Dong, Helin; Zheng, Baofen
CS Fac. Bas. Med. Sci., Shanghai First Med. Coll., Shanghai, Peop. Rep. China
SO Shanghai Diyi Yixueyuan Xuebao (1981), 8(6), 433-8
CODEN: SIIPD4; ISSN: 0253-3650
DT Journal
LA Chinese
AB Quenching corrections were made in liq. scintillation counting by the H-no. measurement method. Quenching can induce the Compton edges to shift to the left. The actual difference of the inflection point of the Compton edges is called H which varies with the change of quench level, and thus the H technique can be used in quench monitoring. CCl4 (chem. quencher) and chlorophenol red and DiMethyl yellow (color quenchers) were studied.
IT 60-11-7
RL: PRP (Properties)
(quenching correction for, using H-no. method, in liq. scintillation counting)
RN 60-11-7 CAPLUS
CN Benzenamine, N,N-dimethyl-4-(phenylazo)- (9CI) (CA INDEX NAME)



L5 ANSWER 92 OF 96 CAPLUS COPYRIGHT 2003 ACS
 AN 1982:42804 CAPLUS
 DN 96:42804
 TI Automatic quenching correction method for samples having both chemical and color quenching in liquid scintillation counting
 AU Yang, Shou Li
 CS Inst. Clin. Res., Chinese Acad. Med. Sci., Peking, Peop. Rep. China
 SO Zhongguo Yixue Kexueyuan Xuebao (1981), 3(2), 114-18
 CODEN: CIHPDR; ISSN: 1000-503X
 DT Journal
 LA Chinese
 AB An automatic quenching correction method in liq. scintillation counting is described, in which a new parameter denoting the degree of contribution from chem. and color quenching in a mixed quenching sample is introduced. By using std. chem. and color quenching samples and a computer, mixed quenching samples can be cor. automatically. The method was successfully applied to a sample soln. contg. CCl4 (chem. **quencher**), methyl red (color **quencher**), and n-14C16H34.
 IT 493-52-7
 RL: PRP (Properties)
 (correction for quenching by, in liq. scintillation counting soln., automatic)
 RN 493-52-7 CAPLUS
 CN Benzoic acid, 2-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)



L5 ANSWER 93 OF 96 CAPLUS COPYRIGHT 2003 ACS
 AN 1977:141593 CAPLUS
 DN 86:141593
 TI Photofading of 1-arylazo-2-naphthols in solution
 AU Kuramoto, Nobuhiro; Kitao, Teijiro
 CS Dep. Chem., Osaka Prefect. Ind. Res. Inst., Osaka, Japan
 SO Nippon Kagaku Kaishi (1977), (2), 258-63
 CODEN: NKAKB8; ISSN: 0369-4577
 DT Journal
 LA Japanese
 GI



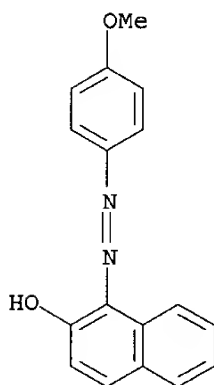
AB Effects of additives, substituents, and solvent on photofading of I (R = H, OH, OMe, Me, Cl, NO₂; R₁ = H, OMe) were studied, and the decompn. products were identified. Photofading of I (R = Me, R₁ = H) [6756-41-8] in methanol [67-56-1] under 0 atm. gave p-methylanisole, and p-anisic acid and its Me ester as main products. The photofading of I was accelerated by methylene blue [61-73-4] (a singlet O sensitizer) and inhibited by dabco [280-57-9] (a singlet O **quencher**). The photofading of I in soln. may be dependent on a self-sensitized photooxidn. by a singlet O. Attack of a singlet O on hydrazone tautomer form of I gave unstable II intermediate, which decompd. to give 1,2-naphthoquinone and p-substituted benzenediazonium ion; the latter species reacted with MeOH to form methoxybenzene derivs.

IT **13411-91-1 62293-32-7**

RL: RCT (Reactant); RACT (Reactant or reagent)
(photofading of, in soln.)

RN 13411-91-1 CAPLUS

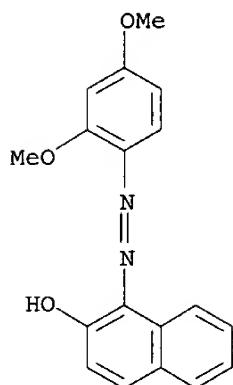
CN 2-Naphthalenol, 1-[(4-methoxyphenyl)azo]- (9CI) (CA INDEX NAME)



RN 62293-32-7 CAPLUS

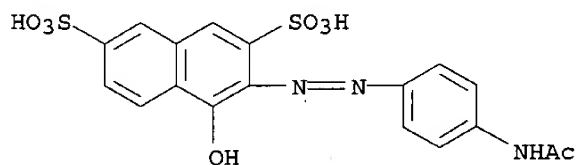
CN 2-Naphthalenol, 1-[(2,4-dimethoxyphenyl)azo]- (9CI) (CA INDEX NAME)

09567863



L5 ANSWER 94 OF 96 CAPLUS COPYRIGHT 2003 ACS
AN 1972:507640 CAPLUS
DN 77:107640
TI Liquid laser containing cyclooctatetraene
IN Brecher, Charles; Heller, Adam; Pappalardo, Romano
PA General Telephone and Electronics Laboratories, Inc.
SO U.S., 4 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3681252	A	19720801	US 1970-85195	19701029
PRAI	US 1970-85195		19701029		
AB	Dye lasers with improved output pulse duration and intensity employ as active media a dye, Rhodamine 6G, Rhodamine S, Rhodamine B, Acridine Red, Kiton Red S, or Uranin, in soln. with the triplet-state quencher , cyclooctatetraene, rather than O2. Thus, for similar Rhodamine 6G lasers employing O2 (air equil.) and cyclooctatetraene, output energies were 1.7 and 44 (arbitrary units), resp., and output pulse durations were 75 and 120 .mu.sec, resp.				
IT	5858-61-7				
RL	DEV (Device component use); USES (Uses) (lasers, contg. triplet-state quencher of cyclooctatetraene)				
RN	5858-61-7 CAPLUS				
CN	2,7-Naphthalenedisulfonic acid, 3-[[4-(acetylamino)phenyl]azo]-4-hydroxy-, disodium salt (9CI) (CA INDEX NAME)				

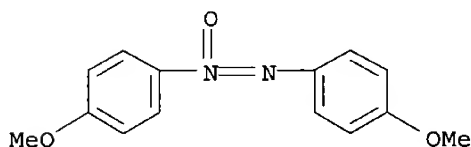


● 2 Na

L5 ANSWER 95 OF 96 CAPLUS COPYRIGHT 2003 ACS
AN 1968:505650 CAPLUS

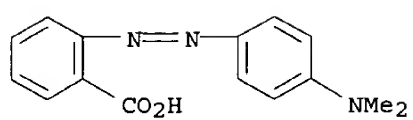
09567863

DN 69:105650
TI Photochemical rearrangement of azoxybenzene to 2-hydroxyazobenzene and cis-trans isomerization
AU Tanikaga, Rikuhei
CS Kyoto Univ., Kyoto, Japan
SO Bulletin of the Chemical Society of Japan (1968), 41(9), 2151-5
CODEN: BCSJA8; ISSN: 0009-2673
DT Journal
LA English
AB The photochem. migration and cis-trans isomerization of azoxybenzene (I) were investigated. The direct irradiation of trans-I leads to both rearrangement to 2-hydroxyazobenzene (II) and cis-trans isomerization, whose rate is faster in a polar, protic solvent and is never affected by a **quencher**. Direct irradiation does not afford any azobenzene formed from an excited triplet state of I. On the basis of these observations, a mechanism in which II and cis-I are formed directly from an excited singlet state of trans-I is proposed. This mechanism is analogous to that for the photochem. rearrangement of nitron to oxaziridine. Nitro- or dimethylamino-substituted I undergoes neither photochem. rearrangement nor cis-trans isomerization. Oxygen migration is not sterically hindered by a substituent in the 3-position of I.
IT **1562-94-3**
RL: PRP (Properties)
(rearrangement (photochem.) of, mechanism of)
RN 1562-94-3 CAPLUS
CN Diazene, bis(4-methoxyphenyl)-, 1-oxide (9CI) (CA INDEX NAME)



L5 ANSWER 96 OF 96 CAPLUS COPYRIGHT 2003 ACS
AN 1966:37718 CAPLUS
DN 64:37718
OREF 64:7048a-b
TI Flash spectroscopic study of the primary photochemical interaction of chlorophyll pigments with electron acceptors and donors
AU Chibisov, A. K.; Karyakin, A. V.; Evstigneev, V. B.; Nazarova, I. G.
CS A. N. Bakh Biochem. Inst., Moscow
SO Biofizika (1965), 10(6), 1098-100
DT Journal
LA Russian
AB cf. CA 60, 12284f. The bimol. rate consts., K_4 , for the quenching of pheophytin a triplets in EtOH at 20.degree. were detd. by flash spectroscopy. With PhNHNH₂ (I) as **quencher**, observations at 470 m.mu. led to K_4 (in M⁻¹ sec.⁻¹) values of 4 .times. 10⁷ at pH 9, 10⁷ at 5, and <5 .times. 10⁵ at 3. With methyl red (II) as **quencher**, K_4 was 4.6 .times. 10⁷ at pH 9, 1.7 .times. 10⁸ at 7, and 6 .times. 10⁸ at 3 and 5, from observations at 650 m.mu.. A more slowly recovering bleaching of II was observed at 500 m.mu.. The triplet is presumed to take an electron from I or to donate an electron to II. The anion radical of II slowly changes to II in a dark process.
IT **493-52-7**, C.I. Acid Red 2
(pheophytin a triplet quenching by)
RN 493-52-7 CAPLUS
CN Benzoic acid, 2-[[4-(dimethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)

09567863



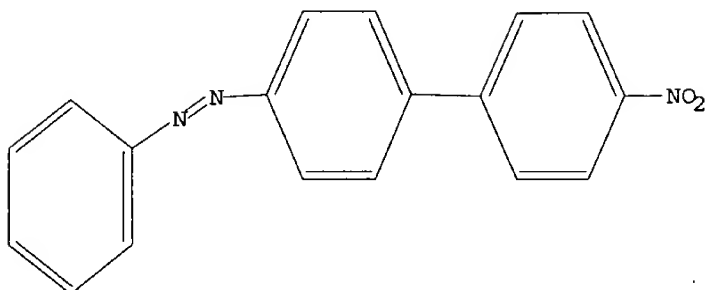
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09567863

=> d 17

L7 HAS NO ANSWERS

L7 STR



G1 C,O,S,N,P,Si

Structure attributes must be viewed using STN Express query preparation.

=> s 17 full

FULL SEARCH INITIATED 10:23:55 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 944 TO ITERATE

100.0% PROCESSED 944 ITERATIONS

11 ANSWERS

SEARCH TIME: 00.00.01

L8 11 SEA SSS FUL L7

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION

FULL ESTIMATED COST

148.95	757.81
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DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION

CA SUBSCRIBER PRICE

0.00	-63.15
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FILE COVERS 1907 - 12 Jan 2003 VOL 138 ISS 3

FILE LAST UPDATED: 10 Jan 2003 (20030110/ED)

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09567863

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=> s l7

REGISTRY INITIATED

Substance data SEARCH and crossover from CAS REGISTRY in progress...
Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

SAMPLE SEARCH INITIATED 10:24:11 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 58 TO ITERATE

100.0% PROCESSED 58 ITERATIONS 0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 704 TO 1616
PROJECTED ANSWERS: 0 TO 0

L9 0 SEA SSS SAM L7

L10 0 L9

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=> s l8

L11 10 L8

=> d l11 bib abs hitstr 1-10

L11 ANSWER 1 OF 10 CAPLUS COPYRIGHT 2003 ACS
AN 2000:384574 CAPLUS
DN 133:24798
TI Color filter layer of cholesterically ordered material, and reflective LCD provided with such a color filter layer
IN Broer, Dirk J.; Mol, Grietje N.; Leenhouts, Frans
PA Koninklijke Philips Electronics N.V., Neth.
SO PCT Int. Appl., 20 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000033129	A1	20000608	WO 1999-EP8944	19991118
	W: JP, KR				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	EP 1051657	A1	20001115	EP 1999-960991	19991118
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2002531874	T2	20020924	JP 2000-585709	19991118
	US 6177216	B1	20010123	US 1999-450233	19991129
PRAI	EP 1998-204054	A	19981201		
	WO 1999-EP8944	W	19991118		

AB The invention relates to a color filter layer of a cholesterically ordered material, in which the axis of the mol. helix is directed perpendicularly to said layer. According to the invention, the color filter layer comprises at least one dye which is able to absorb undesired colors caused by color shifts. A correct choice of the bandwidth of the primary colors of the color filter layer and the dyes significantly alleviates the problem of undesired color shift. The invention also relates to a liq. crystal color display device of the reflective type, which is provided with such a color filter layer.

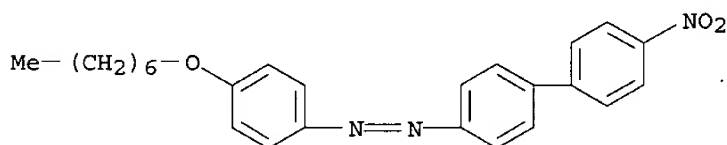
IT 272786-19-3

RL: DEV (Device component use); USES (Uses)

(dye in color filter layer of cholesterically ordered material, and reflective LCD provided with such a color filter layer)

RN 272786-19-3 CAPLUS

CN Diazene, [4-(heptyloxy)phenyl] (4'-nitro[1,1'-biphenyl]-4-yl)- (9CI) (CA INDEX NAME)



RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2003 ACS

AN 1996:579168 CAPLUS

DN 125:341969

TI Optical bistability of the director in an absorbing nematic liquid crystal

AU Terskov, D. B.; Zolot'ko, A. S.; Barnik, M. I.; Romyantsev, V. G.

CS P.N. Lebedev Phys. Inst. Russian Acad. Sci., Moscow, 117333, Russia

SO Molecular Crystals and Liquid Crystals Science and Technology, Section C:

Molecular Materials (1996), 6(3), 151-162

CODEN: MOMAEO; ISSN: 1058-7276

PB Gordon & Breach

DT Journal

LA English

AB It was shown exptl. that an absorbing nematic liq. crystal (NLC) exhibits a bistability when the light wave propagation direction is changed. To obtain the bistability a light intensity two orders of magnitude smaller than the Frederiks transition threshold is sufficient. The angular position of the bistability domain in absorbing NLCs is different from that obsd. in transparent ones. A simple model for the bistability in absorbing NLCs is proposed.

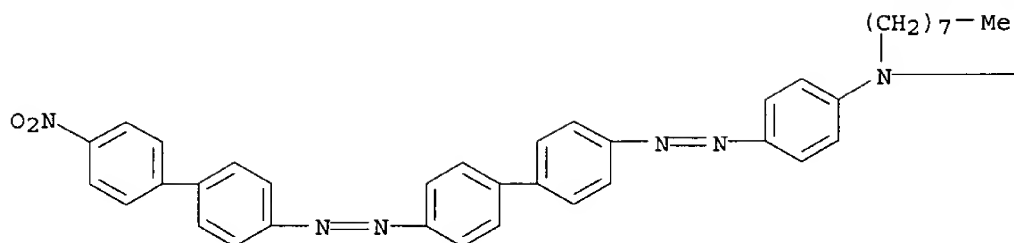
IT 183610-24-4

RL: PRP (Properties)

(optical bistability in nematic liq. crystal mixt. doped with azo-dye)

RN 183610-24-4 CAPLUS

CN Benzenamine, 4-[[4'-[(4'-nitro[1,1'-biphenyl]-4-yl)azo][1,1'-biphenyl]-4-yl]azo]-N,N-dioctyl- (9CI) (CA INDEX NAME)



— (CH₂)₇—Me

L11 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2003 ACS

AN 1995:809207 CAPLUS

DN 123:326294

TI Photo-induced director reorientation in azo-dye-doped nematic liquid crystal

AU Barnik, M. I.; Zolot'ko, A. S.; Romyantseva, V. G.; Terskov, D. B.

CS Nauchno-Issled. Inst. Org. Poluprod. i Krasitelei, Ross. Nauchn. Tsentr, Russia

SO Kristallografiya (1995), 40(4), 746-50
CODEN: KRISAJ; ISSN: 0023-4761

PB MAIK Nauka

DT Journal

LA Russian

AB In nematic liq. crystal contg. a small amt. of azo dye, light-induced reorientation of director at large angles was detected. The effectiveness is 2 times higher than effectiveness of reorientation of director of nondoped liq. crystals under elec. field and light waves. The direction of this reorientation depends on the direction of propagation of light waves, their length, and also on the temp. of the liq. crystal.

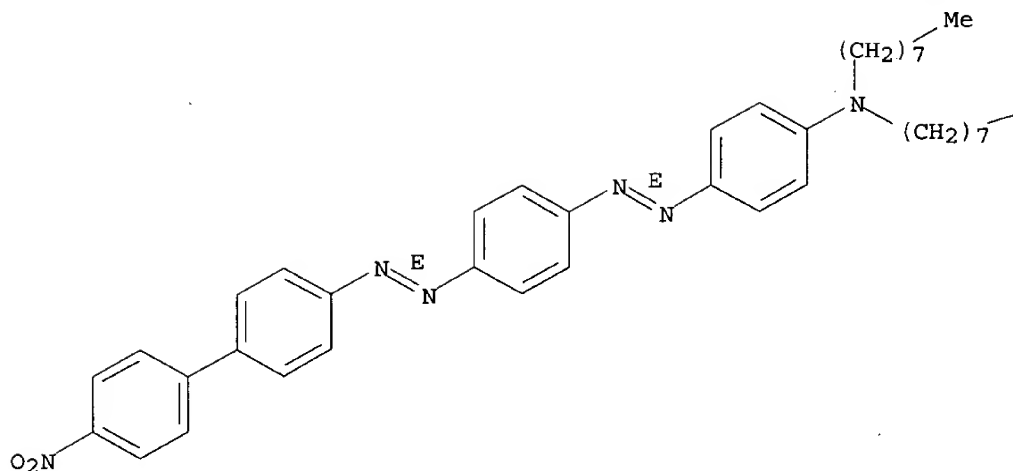
IT 170124-23-9

RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(photo-induced director reorientation nematic liq. crystal doped with)

RN 170124-23-9 CAPLUS

CN Benzenamine, 4-[[4-[(4'-nitro[1,1'-biphenyl]-4-yl)azo]phenyl]azo]-N,N-diocetyl-, (E,E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



Me

L11 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2003 ACS

AN 1983:463383 CAPLUS

DN 99:63383

TI Application of 4'-N-p-nitrophenyl-4-chloroazobenzene-3-sulfonic acid as an adsorption indicator in argentometry

AU Agarwal, D. C.; Chaturvedi, G. K.

CS Chem. Lab., Agra Coll., Agra, 282 002, India

SO Journal of the Indian Chemical Society (1983), 60(3), 311-12

CODEN: JICSAH; ISSN: 0019-4522

DT Journal

LA English

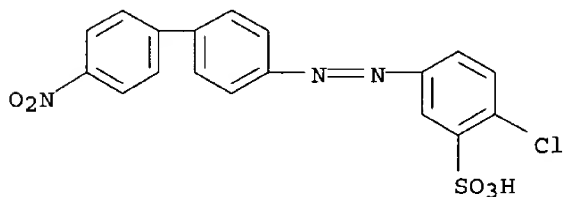
AB 4'-N-p-Nitrophenyl-4-chloroazobenzene-3-sulfonic acid was used as an indicator in the argentometric titrn. of alkali metal halides and pseudohalides (Cl-, Br-, I-, N3-, and SCN-) at pH 6-8 with Ag+. The indicator was also used in detg. Ag+. The color change was from yellow to pink. The error was from .+-0.5 to 1%.

IT 86503-55-1

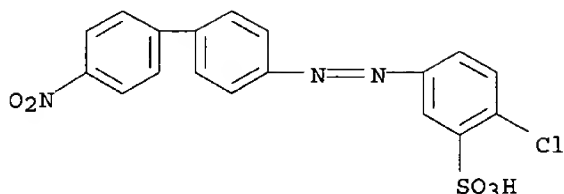
RL: ANST (Analytical study)
(as argentometric indicator)

RN 86503-55-1 CAPLUS

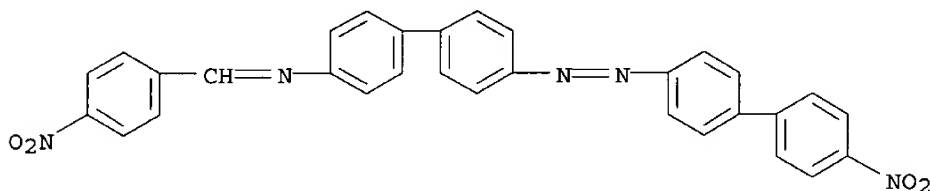
CN Benzenesulfonic acid, 2-chloro-5-[(4'-nitro[1,1'-biphenyl]-4-yl)azo]-
(9CI) (CA INDEX NAME)



09567863



L11 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2003 ACS
AN 1982:113958 CAPLUS
DN 96:113958
TI Degree of order of dissolved molecules in a nematic matrix
AU Pelzl, Gerhard; Vettors, Doris; Demus, Dietrich
CS Sekt. Chem., Martin-Luther-Univ., Halle/Saale, Ger. Dem. Rep.
SO Wissenschaftliche Zeitschrift - Martin-Luther-Universitaet
Halle-Wittenberg, Mathematisch-Naturwissenschaftliche Reihe (1981), 30(4),
81-6
CODEN: WMHMAP; ISSN: 0043-6887
DT Journal
LA German
AB The degree of order of dye mols. with different chain lengths dissolved in
nematic mixts. was studied as a function of temp. In general, the degree
of order increases as the chain length increases with exceptions occurring
for laterally substituted polarizable groups.
IT 81129-21-7
RL: PRP (Properties)
(ordering degree of, in nematic matrix, effect of mol. chain length on)
RN 81129-21-7 CAPLUS
CN [1,1'-Biphenyl]-4-amine, 4'-[(4'-nitro[1,1'-biphenyl]-4-yl)azo]-N-[(4-
nitrophenyl)methylene]- (9CI) (CA INDEX NAME)



L11 ANSWER 6 OF 10 CAPLUS COPYRIGHT 2003 ACS
AN 1980:203999 CAPLUS
DN 92:203999
TI Studies on monolayers. 1. Surface tension and absorption spectroscopic
measurements of monolayers of surface-active azo and stilbene dyes
AU Heesemann, Juergen
CS Abt. Mol. Syst., Max-Planck Inst. Biophys. Chem., Goettingen, D 3400, Fed.
Rep. Ger.
SO Journal of the American Chemical Society (1980), 102(7), 2167-76
CODEN: JACSAT; ISSN: 0002-7863
DT Journal
LA English
AB In order to develop new mols. as functional components of monolayer
assemblies a series of 9 surface-active azo and stilbene compds. were
synthesized. Their monolayer properties at the air-water interface were
studied by surface pressure-surface area measurements and spectroscopic
techniques. Small changes in the mol. structure of the surfactants (such
as length of the fatty acid chain, type of the chromophore, etc.) have an

immense influence on the monolayer properties. For monolayers of some of the dyes, van der Waals-like isotherms are obtained, which show a liq. expanded state, a phase transition region, and a condensed state. Monolayer absorbance spectra show that in the liq. expanded state at 100-110 .ANG.2/mol. the chromophores lie flatly on the water surface, forming monomers. Surface absorbance-surface area isotherms show that the phase transition region of the isotherms can be assigned to a change of orientation of the chromophore axis (horizontal .fwdarw. vertical) and an aggregation of the chromophores (monomers .fwdarw. H aggregates). High dichroic and narrow absorbance bands are obsd. for condensed films of several dyes, which are assigned to H aggregates (planar pincushion-like arrangement of the chromophores). By means of mol. models several mol. arrangements are discussed which are consistent with the exptl. results. Numerous synthetic intermediates are included in the present paper.

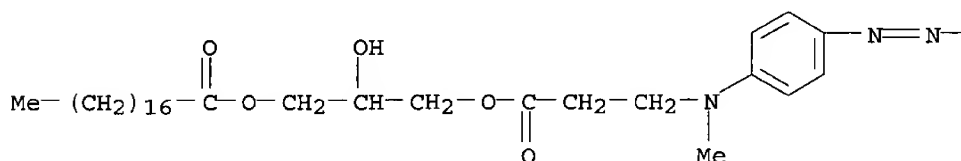
IT 73651-74-8

RL: PRP (Properties)
(dye, surface-active, monolayers)

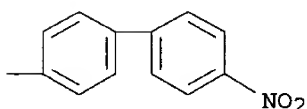
RN 73651-74-8 CAPLUS

CN .beta.-Alanine, N-methyl-N-[4-[(4'-nitro[1,1'-biphenyl]-4-yl)azo]phenyl]-, 2-hydroxy-3-[(1-oxooctadecyl)oxy]propyl ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



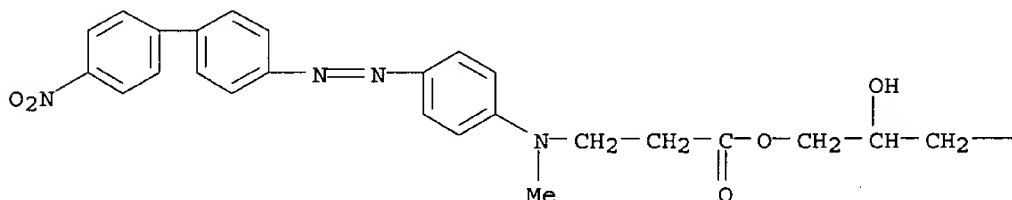
IT 73640-38-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and esterification of)

RN 73640-38-7 CAPLUS

CN .beta.-Alanine, N-methyl-N-[4-[(4'-nitro[1,1'-biphenyl]-4-yl)azo]phenyl]-, 2,3-dihydroxypropyl ester (9CI) (CA INDEX NAME)

PAGE 1-A



—OH

L11 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2003 ACS

AN 1976:456251 CAPLUS

DN 85:56251

TI Carrier-bound indicators

IN Pfeil, Emanuel

PA Behringwerke A.-G., Fed. Rep. Ger.

SO Ger. Offen., 15 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2436257	A1	19760212	DE 1974-2436257	19740727
	DE 2436257	B2	19760701		
	DE 2436257	C3	19770310		
PRAI	DE 1974-2436257		19740727		

AB Nonbleeding indicators for use in solns. are prep'd. by impregnation of carrier materials at 40-120.degree. for 0.1-24 hr in aq. solns. of substantive indicator dyes contg. 0.01-1.0M salts. The indicators, such as pH indicators, redox indicators, metal indicators, or diazonium compds., are not covalently bound to the carrier materials, such as plastics, or fibers as paper, powders, or pellets. Thus a cotton paper was impregnated with 10⁻⁴M 4,4'-bis(4-hydroxyphenylazo)-2,2'-stilbenedisulfonic acid in a soln. contg. 2.0 g Na₂SO₄ and 50 mg Hostapon T (a leveling agent) in 1000 ml at 50.degree. for 24-36 hr. The paper changes color at pH 7.5.

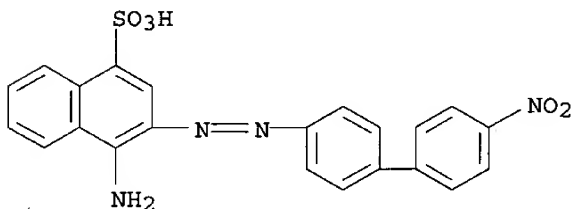
IT 60048-97-7

RL: ANST (Analytical study)

(as pH indicators, nonbleeding, fibers and papers impregnated with)

RN 60048-97-7 CAPLUS

CN 1-Naphthalenesulfonic acid, 4-amino-3-[(4'-nitro[1,1'-biphenyl]-4-yl)azo]-
(9CI) (CA INDEX NAME)



L11 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2003 ACS

AN 1969:462406 CAPLUS

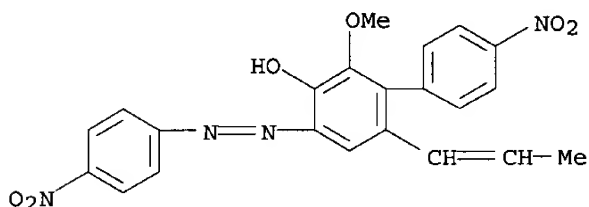
DN 71:62406

TI Azo coupling of lignin model compounds

AU Kroshilova, T. M.; Nikitin, V. M.

09567863

CS Leningrad. Lesotekh. Akad. im. Kirova, Leningrad, USSR
SO Khimiya Drevesiny (1968-74) (1968), 2, 101-6
CODEN: KHDRAN; ISSN: 0453-8226
DT Journal
LA Russian
AB The models used were vanillyl alc., vanillic acid, guaiacol, veratrole, .alpha.-guaiacylpropanol, .alpha.-guaiacyl Et ketone, eugenol, isoeugenol, and ferulic acid. For diazo coupling, use was made of the diazonium salts of anthranilic acid, p-nitroaniline, and aniline. All model compds. form dyes. The azo group replaces the H of the benzene ring ortho to the phenolic OH, except for vanillic acid and .alpha.-guaiacyl Et ketone, for which the azo group replaces the substituent in the para position, and guaiacol. At high pH of the medium and an excess of diazonium salt, some model compds., esp. those in which the azo group occupies the para position, are capable of arylation; the arylation apparently proceeds through the intermediate quinonehydrazone form. Ferulic acid is arylated by replacement of the CO₂H group at the double bond. Also arylation of ferulic acid and isoeugenol is possible in the benzene ring; in this case, the arylation apparently proceeds through the intermediate methylenequinone or some other form. Nineteen new compds. were obtained and proposed structural formulas are given.
IT 25538-85-6
RL: USES (Uses)
(as lignin model compd.)
RN 25538-85-6 CAPLUS
CN 3-Biphenylol, 2-methoxy-4'-nitro-4-[(p-nitrophenyl)azo]-6-propenyl- (8CI)
(CA INDEX NAME)



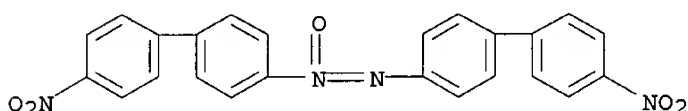
L11 ANSWER 9 OF 10 CAPLUS COPYRIGHT 2003 ACS
AN 1966:51246 CAPLUS
DN 64:51246
OREF 64:9525b-e
TI Reduction of aromatic nitro compounds with phosphine
AU Bellaart, A. C.
CS Technol. Univ., Eindhoven, Neth.
SO Tetrahedron (1965), 21(12), 3285-8
DT Journal
LA English
AB cf. CA 61, 9495b. PH₃ passed at 50 ml./min. through 5.19 g. 2-nitronaphthalene (m. 78-9.degree.), ppt. (3.8 g.) extd. with cold Et₂O in the dark gave 2.3 g. Et₂O-insol. yellow needles of benzo[f]naphtho[2,1-c]cinnoline N-oxide, m. 247-8.degree. (decompn.), mol. wt. 296 (mass spectrometry), reduced in alk. aq. alc. with Zn dust to give pale yellow needles of benzo[f]naphtho[2,1-c]cinnoline, m. 269.5-70.5.degree., mol. wt. 280. The collected ethereal exts. evapd. and the residue recrystd. from AcOH in the dark gave yellow needles of 2,2'-azoxynaphthalene (I), m. 162.5-3.5.degree., mol. wt. 298, converted by exposure in alc. soln. to direct sunlight into a red isomeride, m. 162-3.5.degree.. Both isomers had identical ir spectra and their identical uv spectra showed complex bands with peak positions at 262, 277, 287, 348 m.mu.. The red isomeride

showed a weak but distinct band near 506 m. μ ., absent from the spectrum of the yellow isomer and independent of the manner of prepn. I reduced by Zn dust in alk. aq. alc. gave 2,2'-azonaphthalene, 4,4'-nitrobiphenyl in alk. aq. alc. gave the corresponding azoxy compds.: 2,2'-diphenylazoxybenzene, m. 157.5-8.5.degree., mol. wt. 350; 3,3'-diphenylazoxybenzene, m. 111.0-11.5.degree., mol. wt. 350; 4,4'-diphenylazoxybenzene, m. 212.5-13.degree., mol. wt. 350; 4,4'-bis(4-nitrophenyl)azoxybenzene, m. 280-2.degree. (decompn.), mol. wt. 440. PH₃ reduction of 2,2'-dinitrobiphenyl gave a good yield of benzo[c]cinnoline N,N'-dioxide, m. 234-6.degree. (decompn.), mol. wt. 212 (mass spectrometry). Reduction of 1-nitronaphthalene failed to yield any cryst. compd. PH₃ reduction of aromatic nitro compds. does not always lead to azoxy compds.

IT 7334-13-6, Azoxybenzene, 4,4'-bis(p-nitrophenyl)-
(prepn. of)

RN 7334-13-6 CAPLUS

CN Azoxybenzene, 4,4'-bis(p-nitrophenyl)- (7CI, 8CI) (CA INDEX NAME)



L11 ANSWER 10 OF 10 CAPLUS COPYRIGHT 2003 ACS

AN 1963:14644 CAPLUS

DN 58:14644

OREF 58:2389e-h,2390a

TI Aromatic fluoro derivatives. IX. Diazotization of aromatic amines by nitrosyl borofluoride

AU Yakobson, G. G.; D'yachenko, A. I.; Bel'chikova, F. A.

CS D. I. Mendeleev Chem.-Technol. Inst., Moscow

SO Zh. Obshch. Khim. (1962), 32, 849-53

DT Journal

LA Unavailable

AB cf. CA 57, 9706h; Voznesenskii and Kurskii, CA 32, 83795. Reaction of N₂O₄ with 75% HF gave a ppt. of NOBF₄, which after washing with ice-cold AcOH-CHCl₃ and Et₂O may be stored in sealed ampuls. The aromatic amine in dry Me₂CO was treated with 10% excess NOBF₄ in Me₂CO, stirred 0.5 hr., and the product pptd. by addn. to dry CHCl₃; alternatively the amine in Et₂O was added to 10% excess NOBF₄ in Et₂O at -10.degree. and stirred 1 hr. Diamines were diazotized in MeNO₂ soln. and the mixts. were quenched in CCl₄. The following ArN₂BF₄ were obtained in 85-100% yields (Ar shown): o-nitrophenyl, decompd. at 132.degree., m-isomer, decompd. at 170.degree.; p-isomer, decompd. at 157.degree.; 2,4-dinitrophenyl, decompd. at 158.degree.; 2,5-dichlorophenyl, decompd. at 190.degree.; 2,4-difluorophenyl, decompd. at 145.degree.; 2,6-dichloro-4-nitrophenyl, decompd. at 181.degree.; 2,4,5-trichlorophenyl, decompd. at 182.degree.; 2,4,6-trichlorophenyl, decompd. at 185.degree.; 2,4,5-trifluorophenyl, decompd. at 98.degree.; 2,4-difluoro-6-bromophenyl, decompd. at 201.degree.; 2,4,5-trichloro-6-bromophenyl, decompd. at 273.degree.; Cl₅C₆, decompd. at 252.degree.; 1-anthraquinonyl, decompd. at 188.degree.; 2-isomer, decompd. at 205.degree.; 3-chloro-2-anthraquinonyl, decompd. at 198.degree.; 2-chloro-4-bromo-1-anthraquinonyl, decompd. at 236.degree., m-C₆H₄ (bisdiazonium salt), decompd. at 202.degree.; p-isomer, decompd. at 170.degree.. 2,4,5-Cl₃C₆H₂NH₂ in AcOH-NaOAc treated with Br at below 15.degree. gave 96% 2,4,5-trichloro-6-bromoaniline, m. 94-4.5.degree.; acetyl deriv. m. 193.1-3.5.degree.. Similarly was prepd. 80-5% 2,4,5-trifluoro-6-bromoaniline, m. 36.5-7.5.degree. (acetyl deriv. m. 134-4.8.degree.) and 90% 2,4-difluoro-6-bromoaniline, m. 42-2.5.degree.

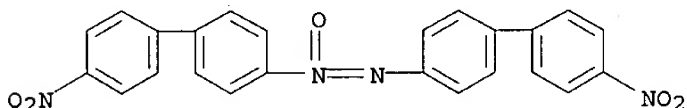
09567863

(benzoyl deriv. m. 166.3-7.1.degree.). 2,4,5,6-F3BrC6HN2BF4 (prepd. in Me2CO as above) decompd. at 144.degree.; coupling with 2-naphthol gave red 2,4,5-trifluoro-6-bromobenzene-1-azo-1'-(2-naphthol), m. 196-7.degree.. If the above fluoroborate was prepd. in Et2O with iso-AmONO in the presence of HBF4, the product decompd. at 100-10.degree.. The diazotization of 2,4,5-trifluoro-6-nitroaniline in Et2O with NOBF4 gave an oily fluoroborate of the diazonium salt (f.p. -10.degree.) which rapidly decompd. at room temp.; with 2-naphthol gave red 2,4,5-trifluoro-6-nitrobenzene-1-azo-1'-(2-naphthol), m. 192-3.degree..

IT 7334-13-6, Azoxybenzene, 4,4'-bis(p-nitrophenyl)-
(prepn. of)

RN 7334-13-6 CAPLUS

CN Azoxybenzene, 4,4'-bis(p-nitrophenyl)- (7CI, 8CI) (CA INDEX NAME)



=> dhis

DHIS IS NOT A RECOGNIZED COMMAND

The previous command name entered was not recognized by the system.

For a list of commands available to you in the current file, enter "HELP COMMANDS" at an arrow prompt (=>).

=> d his

(FILE 'HOME' ENTERED AT 09:56:56 ON 12 JAN 2003)

FILE 'REGISTRY' ENTERED AT 09:57:05 ON 12 JAN 2003

L1 STRUCTURE UPLOADED

L2 STRUCTURE UPLOADED

L3 57478 S L2 FULL

FILE 'CAPLUS' ENTERED AT 09:59:02 ON 12 JAN 2003

L4 27503 S L3

L5 96 S L4 AND QUENCHER

L6 1 S L5 AND PHOSPHORAMIDITE

FILE 'REGISTRY' ENTERED AT 10:22:28 ON 12 JAN 2003

L7 STRUCTURE UPLOADED

L8 11 S L7 FULL

FILE 'CAPLUS' ENTERED AT 10:24:03 ON 12 JAN 2003

S L7

FILE 'REGISTRY' ENTERED AT 10:24:10 ON 12 JAN 2003

L9 0 S L7

FILE 'CAPLUS' ENTERED AT 10:24:11 ON 12 JAN 2003

L10 0 S L9

L11 10 S L8

=> s l11 and quencher

5234 QUENCHER

L12 0 L11 AND QUENCHER

=>

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=>
Uploading 09876830.str

L17 STRUCTURE UPLOADED

=> d l17
L17 HAS NO ANSWERS
L17 STR

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

Structure attributes must be viewed using STN Express query preparation.

=> s l17 full
FULL SEARCH INITIATED 10:32:40 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 868 TO ITERATE

100.0% PROCESSED 868 ITERATIONS 333 ANSWERS
SEARCH TIME: 00.00.01

L18 333 SEA SSS FUL L17

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COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
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	ENTRY	SESSION
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FILE LAST UPDATED: 10 Jan 2003 (20030110/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

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=> s l18
L19 99 L18

09567863

=> s 119 and quencher
5234 QUENCHER
L20 0 L19 AND QUENCHER

=> s 119 and dye
222322 DYE
L21 86 L19 AND DYE

=> dup rem l21
PROCESSING COMPLETED FOR L21
L22 86 DUP REM L21 (0 DUPLICATES REMOVED)

=> d l22 bib abs hitstr 1-86

L22 ANSWER 1 OF 86 CAPLUS COPYRIGHT 2003 ACS

AN 2002:946595 CAPLUS

DN 138:30859

TI Optical devices based on molecularly oriented layer of a low-mol. or oligomeric dichroic material which can form a stable lyotropic liq. crystal

IN Khan, Ir Gvon; Belyaev, Sergej Vasilievich; Borozhtsov, Georgy Nikolaevich; Kukushkina, Maria Leonardovna; Malimonenko, Nikolai Vladimirovich; Masanova, Nataliya Nikolaevna; Shishkina, Elena Yurievna; Tambieva, Olga Akhmatovna

PA Russia

SO PCT Int. Appl., 36 pp.

CODEN: PIXXD2

DT Patent

LA Russian

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002099480	A1	20021212	WO 2002-RU270	20020603
	W: CA, CN, JP, KR, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				

PRAI RU 2001-114924 A 20010604

AB Optical devices for producing and/or transforming polarized electromagnetic emission by means of anisotropic absorption and/or optical rotation effects and/or birefringence are described which are based on .gtoreq.1 molecularly oriented layer of a low-mol. or oligomeric dichroic material which can form a stable lyotropic liq. crystal structure, and the projection of .gtoreq.1 anisotropically absorbing fragment of the mol. of the dichroic material on the surface of the molecularly oriented layer of a dipole moment of optical transition is disposed in a parallel position to the optical axis of the molecularly oriented layer at least within several wavelength ranges of the electromagnetic emission. The devices can be used as different polarizers (dichroic, reflecting), lagging layers (retarders), liq.-crystal displays.

IT 306772-34-9 478062-05-4 478062-33-8

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(optical devices based on molecularly oriented layer of low-mol. or oligomeric dichroic material which can form stable lyotropic liq. crystal)

RN 306772-34-9 CAPLUS

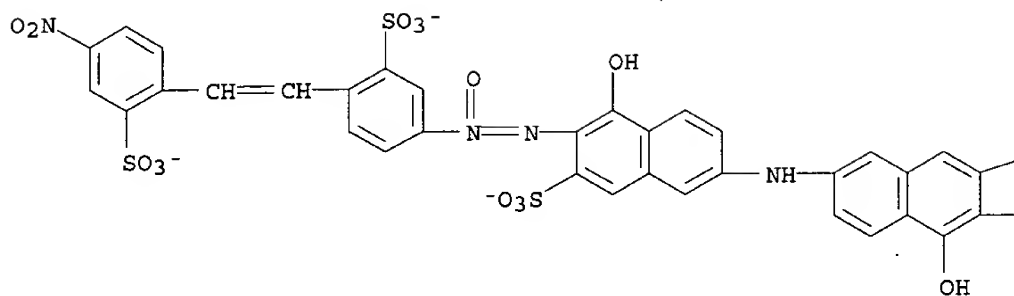
CN Phosphonium, trimethyl(phenylmethyl)-, salt with 7,7'-iminobis[4-hydroxy-3-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]-ONN-azoxy]-2-naphthalenesulfonic acid] (6:1) (9CI) (CA INDEX NAME)

CM 1

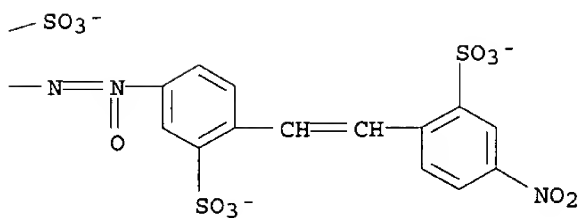
09567863

CRN 306772-33-8
CMF C48 H27 N7 O26 S6

PAGE 1-A



PAGE 1-B



CM 2

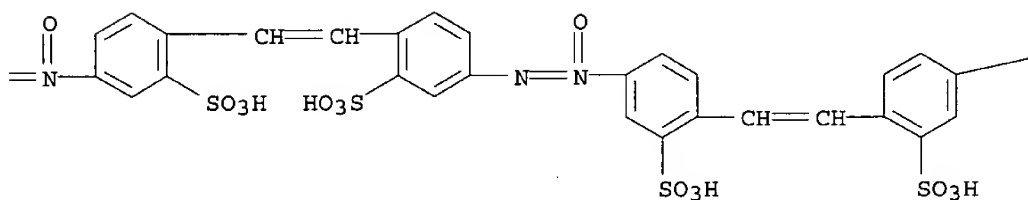
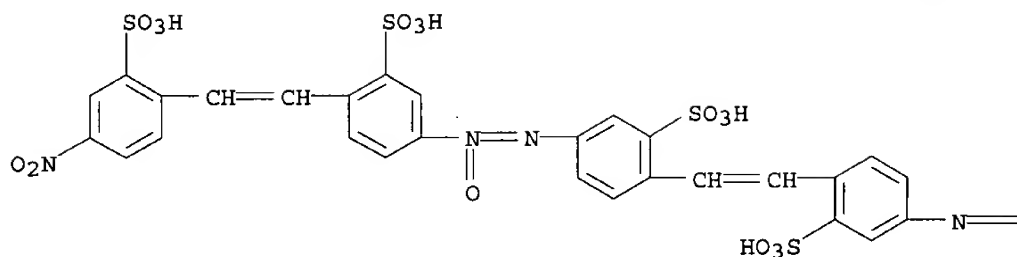
CRN 24422-67-1
CMF C10 H16 P

$\text{Me}_3\text{P}-\text{CH}_2-\text{Ph}$

RN 478062-05-4 CAPLUS
CN INDEX NAME NOT YET ASSIGNED

CM 1

CRN 16473-78-2
CMF C56 H40 N8 O31 S8

—NO₂

CM 2

CRN 111-42-2

CMF C4 H11 N O2

HO—CH₂—CH₂—NH—CH₂—CH₂—OH

RN 478062-33-8 CAPLUS

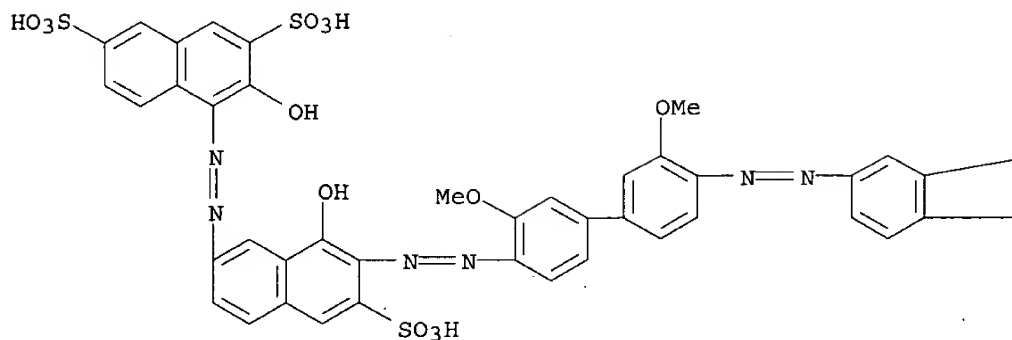
CN 2,7-Naphthalenedisulfonic acid, 4-[[[7-[[[3,3'-dimethoxy-4'-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo][1,1'-biphenyl]-4-yl]azo]-8-hydroxy-6-sulfo-2-naphthalenyl]azo]-3-hydroxy-, compd. with 26-amino-3,6,9,12,15,18,21,24-octaohexacosan-1-ol (1:5) (9CI) (CA INDEX NAME)

CM 1

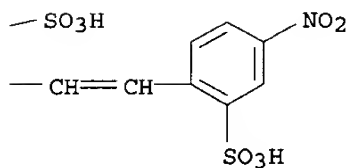
09567863

CRN 306772-25-8
CMF C48 H35 N7 O21 S5

PAGE 1-A



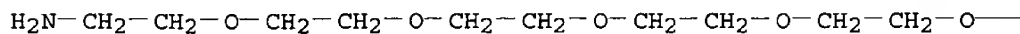
PAGE 1-B



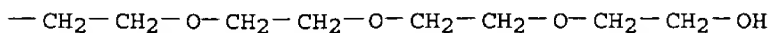
CM 2

CRN 15332-95-3
CMF C18 H39 N O9

PAGE 1-A



PAGE 1-B



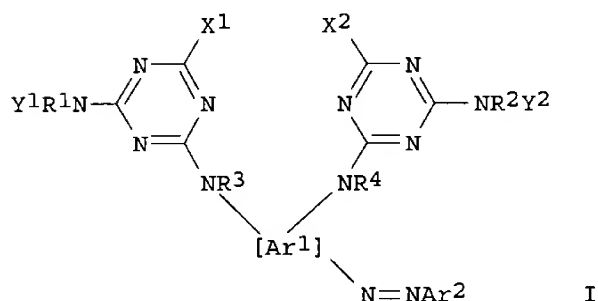
RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 2 OF 86 CAPLUS COPYRIGHT 2003 ACS
AN 2002:107456 CAPLUS

09567863

DN 136:168965
TI Reactive trisazo dyes, their production and their use
IN Ebenezer, Warren James
PA Dystar Textilfarben G.m.b.H. & Co. Deutschland K.-G., Germany
SO PCT Int. Appl., 36 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002010287	A1	20020207	WO 2001-EP8465	20010721
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
PRAI	GB 2000-18508	A	20000727		
OS	MARPAT 136:168965				
GI					



AB The invention refers to trisazo reactive dyes [I; Ar1 = optionally substituted arylene; Ar2 = optionally substituted aryl; R1, R2, R3, R4 = H, alkyl, Ph; X1, X2 = labile atom or group; Y1, Y2 = (optionally sulfonated arylazo)(sulfo)hydroxynaphthyl] or their salts, their prodn. and their use in reactive dyeing of fabrics. I provide particularly strong yellow to red shades with good migration resistance, excellent build-up, and good fastness properties.

IT **396105-03-6P**

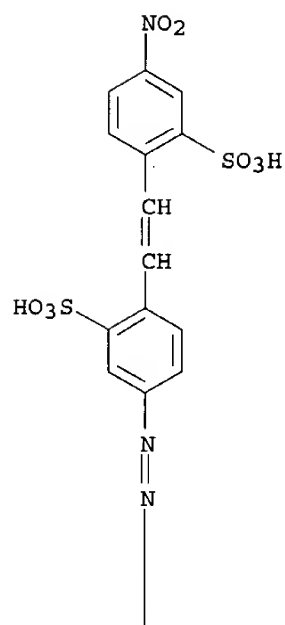
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(dye; prodn. and use of reactive trisazo dyes)

RN 396105-03-6 CAPLUS

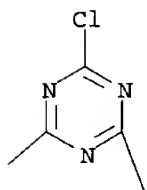
CN 1,7-Naphthalenedisulfonic acid, 2,2'-[[4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]-1,3-phenylene]bis[(6-chloro-1,3,5-triazine-4,2-diyl)imino]]bis[5-hydroxy-6-[[2-sulfo-4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

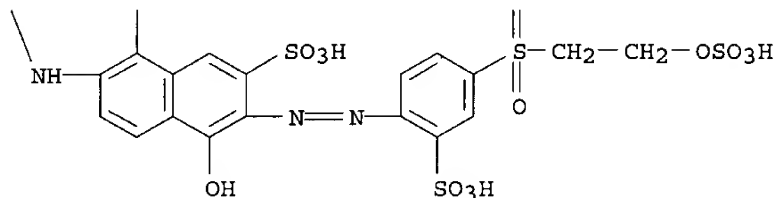
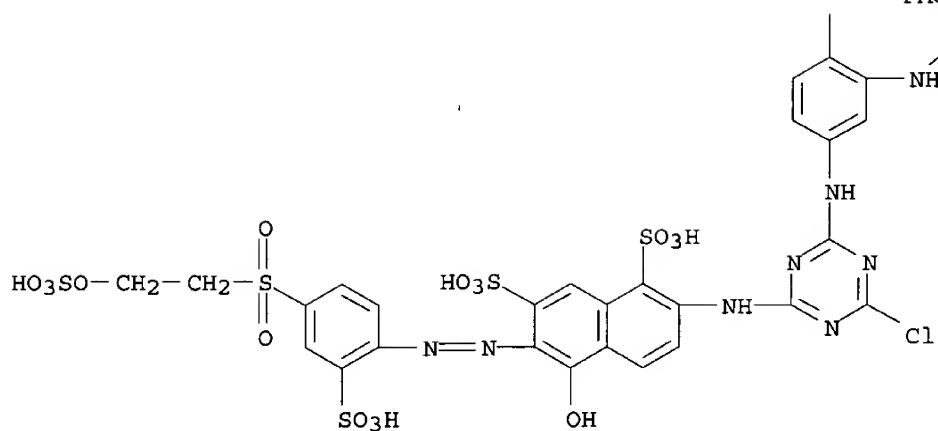
09567863

PAGE 1-A



PAGE 1-B

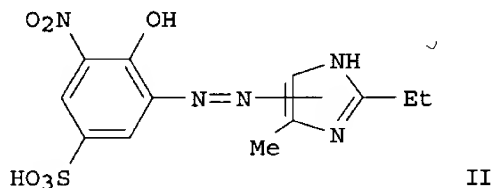
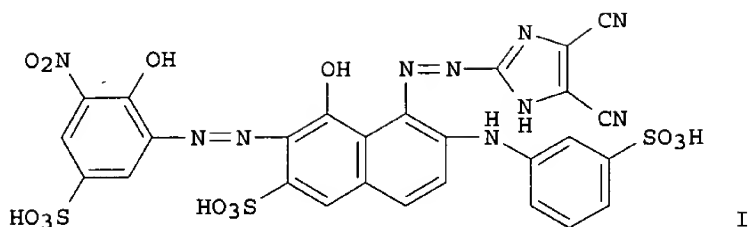




RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

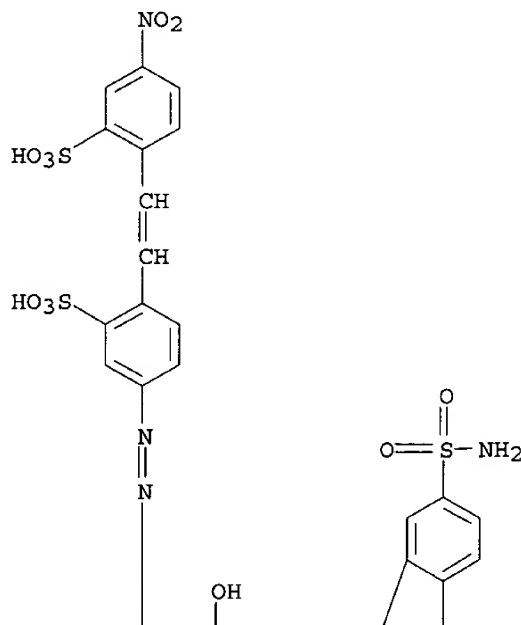
L22 ANSWER 3 OF 86 CAPLUS COPYRIGHT 2003 ACS
AN 2002:98740 CAPLUS
DN 136:152891
TI Coloring materials for jet recording liquids
IN Takimoto, Hiroshi
PA Japan
SO Jpn. Kokai Tokkyo Koho, 11 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

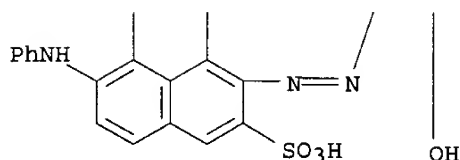
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002038062	A2	20020206	JP 2000-222108	20000724
PRAI	JP 2000-222108		20000724		
OS	MARPAT 136:152891				
GI					



- AB Inks contain metal (Cu, Co, Ni, Fe) complexes of I, II, and similar compds. Thus, a reddish black ink contained ethylene glycol 15, isopropanol 3, a complex of Co with I 5, and water and aq. LiOH to 100 parts and pH 9.
- IT **394709-67-2D**, complexes with metals
 RL: TEM (Technical or engineered material use); USES (Uses)
 (complexes of azo compds. with metals for coloring materials for jet recording liqs.)
- RN 394709-67-2 CAPLUS
- CN 2-Naphthalenesulfonic acid, 3-[[5-(aminosulfonyl)-2-hydroxyphenyl]azo]-4-hydroxy-5-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]-6-(phenylamino)- (9CI) (CA INDEX NAME)

PAGE 1-A





L22 ANSWER 4 OF 86 CAPLUS COPYRIGHT 2003 ACS
 AN 2002:63638 CAPLUS
 DN 136:120021
 TI Storage-stable aqueous ink-jet inks resulting bright magenta or black prints
 IN Takimoto, Hiroshi
 PA Japan
 SO Jpn. Kokai Tokkyo Koho, 12 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002020660	A2	20020123	JP 2000-204062	20000705
PRAI	JP 2000-204062		20000705		
OS	MARPAT 136:120021				
GI					

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title inks contain I [A1 = alkyl- or alkoxy-substituted Ph, SO₃H-substituted naphthyl; A2 = (phenyl-substituted) aminonaphtholsulfonic acid, COOH- or SO₃H-substituted alkyl(aminonaphthalenesulfonic acid), phenylaminonaphthalenesulfonic acid], II (D1 = A1; D2 = A2; l, m, n, p = 0-1 with l + p = m + n = 1), III (X1 = acylamino, triazinylamino, COOH- or SO₃H-substituted alkylamino; X2 = 1-hydroxy-naphthalene-3,8-disulfonic acid, 1-hydroxy-naphthalene-3,6,8-trisulfonic acid, 2-hydroxy-3-carboxy-naphthalene-8-sulfonic acid, 2-hydroxy-naphthalene-8-sulfonic acid, 2-hydroxy-naphthalene-6,8-disulfonic acid), IV (G = X2), and/or V (Q1 = COOH or SO₃H-substituted alkyl or Ph or benzyl or naphthyl; Q2 = H or COOH or SO₃H-substituted alkyl; R = H, alkyl, alkoxy, SO₃H, actlamino, triazinylamino; Y-contg. ring = benzene ring or heterocyclic ring; Z1 = H, NO₂, CN, COOH, SO₃H; Z2 = H, COOH, SO₃H or COOH-substituted alkyl). An aq. ink (with pH = 9) contg. 5% I (A1 = dimethoxy-substituted phenylene with both OMe at o-position to azo linkage, A2 = VI) showed good storage stability at room temp. for 3 mo and gave black prints with high concn. and good light, water, and weather resistance.

IT 97097-91-1 390807-63-3 390807-65-5
 390807-67-7 390807-69-9 390807-71-3
 390807-73-5 390807-75-7 390807-77-9
 390807-98-4 390808-00-1 390808-02-3
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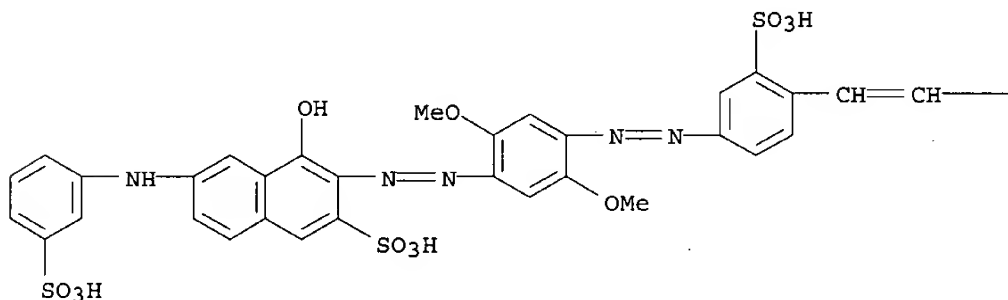
RL: TEM (Technical or engineered material use); USES (Uses)
 (specific azo dye-contg. aq. ink-jet inks with storage
 stability for formation of bright magenta or black prints)

09567863

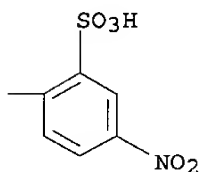
RN 97097-91-1 CAPLUS

CN 2-Naphthalenesulfonic acid, 3-[[2,5-dimethoxy-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]-4-hydroxy-6-[(3-sulfophenyl)amino]- (9CI) (CA INDEX NAME)

PAGE 1-A



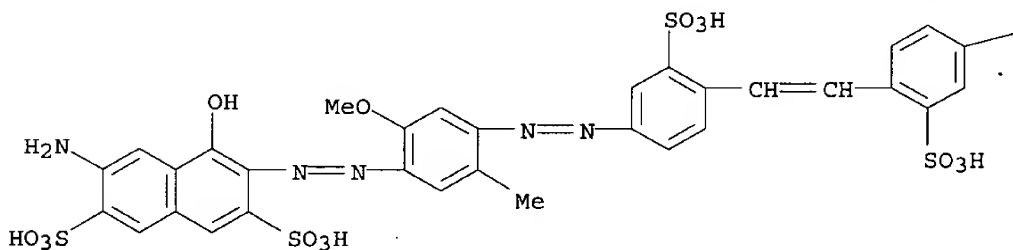
PAGE 1-B



RN 390807-63-3 CAPLUS

CN 2,7-Naphthalenedisulfonic acid, 6-amino-4-hydroxy-3-[[2-methoxy-5-methyl-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

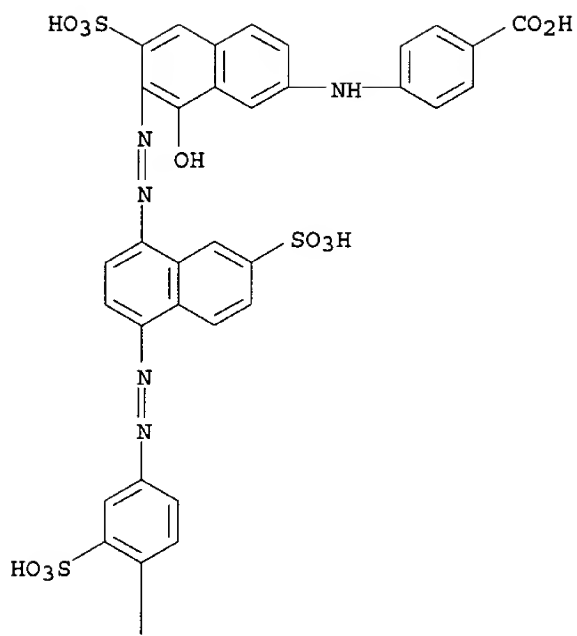


RN 390807-65-5 CAPLUS

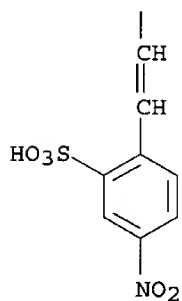
CN Benzoic acid, 4-[[8-hydroxy-7-[[4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]-7-sulfo-1-naphthalenyl]azo]-6-sulfo-2-naphthalenyl]amino]- (9CI) (CA INDEX NAME)

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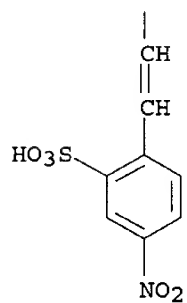
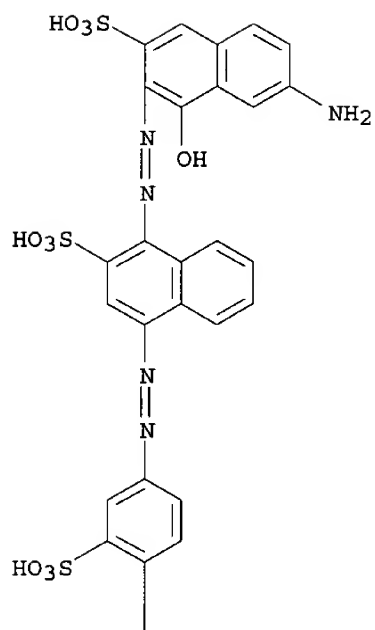
PAGE 1-A



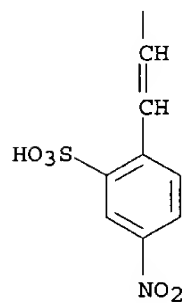
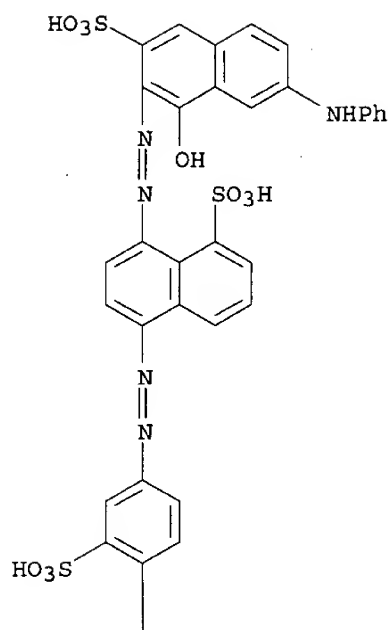
PAGE 2-A



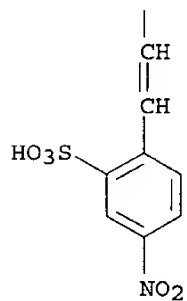
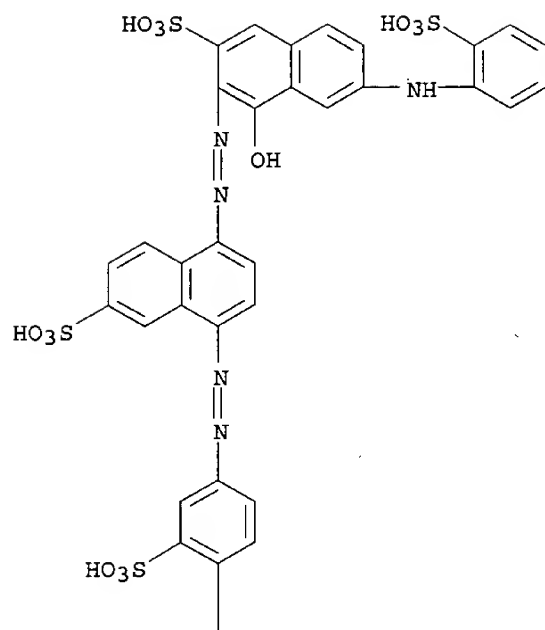
RN	390807-67-7	CAPLUS
CN	2-Naphthalenesulfonic acid, 6-amino-4-hydroxy-3-[[4-[[4-[2-(4-nitro-2-sulfo-phenyl)ethenyl]-3-sulfo-phenyl]azo]-2-sulfo-1-naphthalenyl]azo]- (9CI)	
	(CA INDEX NAME)	



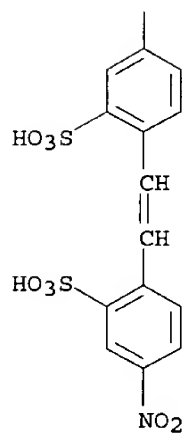
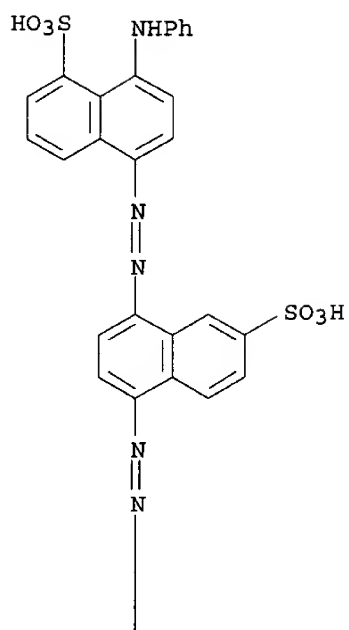
RN 390807-69-9 CAPLUS
 CN 1-Naphthalenesulfonic acid, 8-[[[1-hydroxy-7-(phenylamino)-3-sulfo-2-naphthalenyl]azo]-5-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]- (9CI) (CA INDEX NAME)



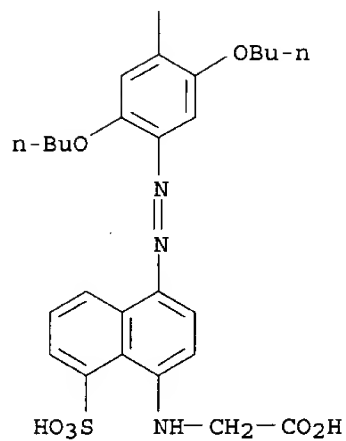
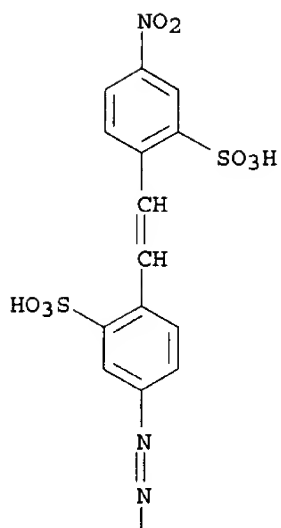
RN 390807-71-3 CAPLUS
 CN 2-Naphthalenesulfonic acid, 4-hydroxy-3-[[4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]-6-sulfo-1-naphthalenyl]azo]-6-[(2-sulfophenyl)amino]- (9CI) (CA INDEX NAME)



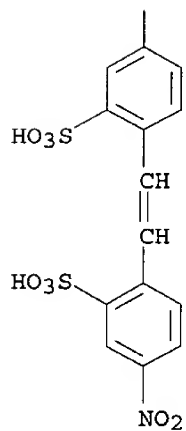
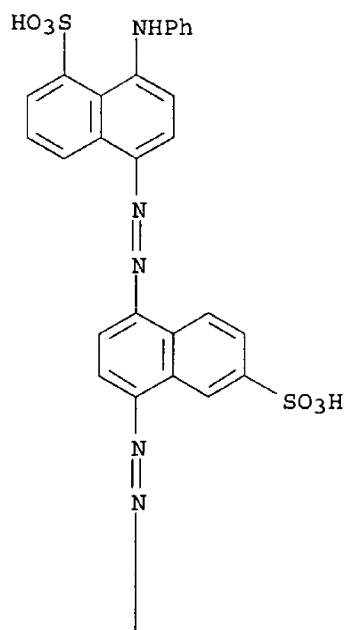
RN 390807-73-5 CAPLUS
 CN 1-Naphthalenesulfonic acid, 5-[[4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]-7-sulfo-1-naphthalenyl]azo]-8-(phenylamino)- (9CI) (CA INDEX NAME)



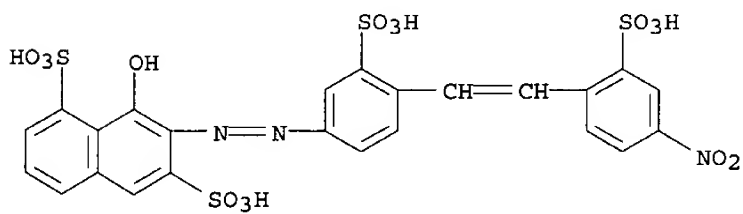
RN 390807-75-7 CAPLUS
 CN Glycine, N-[4-[[2,5-dibutoxy-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]-8-sulfo-1-naphthalenyl]- (9CI) (CA INDEX NAME)



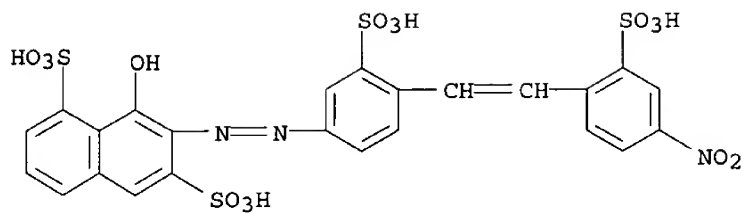
RN 390807-77-9 CAPLUS
 CN 1-Naphthalenesulfonic acid, 5-[[4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]-6-sulfo-1-naphthalenyl]azo]-8-(phenylamino)- (9CI) (CA INDEX NAME)



RN 390807-98-4 CAPLUS
 CN 1,6-Naphthalenedisulfonic acid, 8-hydroxy-7-[[4-[2-(4-nitro-2-sulphophenyl)ethenyl]azo]-3-sulphophenyl]azo- (9CI) (CA INDEX NAME)

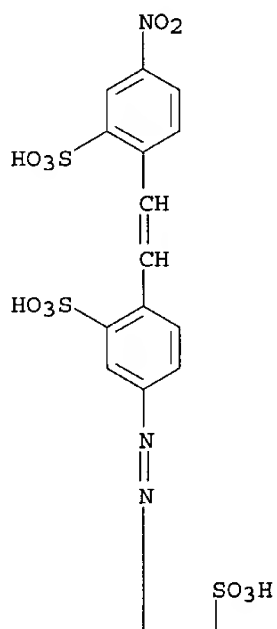


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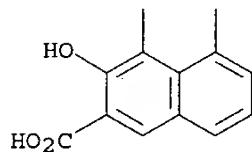


RN 390808-00-1 CAPLUS
CN 2-Naphthalenecarboxylic acid, 3-hydroxy-4-[[4-[2-(4-nitro-2-sulphophenyl)ethenyl]-3-sulphophenyl]azo]-5-sulfo- (9CI) (CA INDEX NAME)

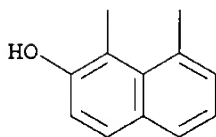
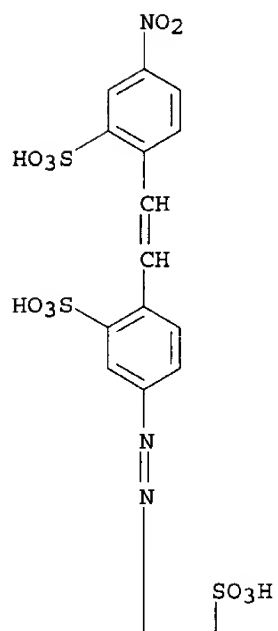
PAGE 1-A



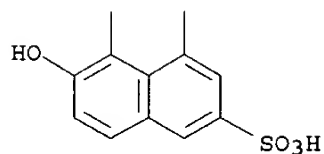
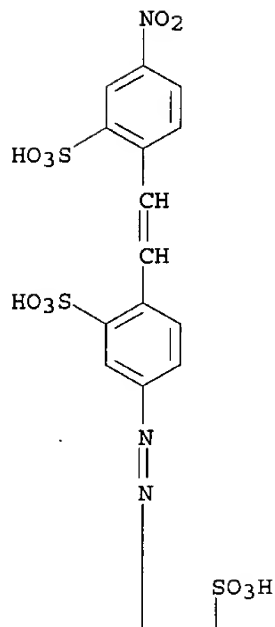
PAGE 2-A



RN 390808-02-3 CAPLUS
CN 1-Naphthalenesulfonic acid, 7-hydroxy-8-[[4-[2-(4-nitro-2-sulphophenyl)ethenyl]-3-sulphophenyl]azo]- (9CI) (CA INDEX NAME)



RN 390808-04-5 CAPLUS
 CN 1,3-Naphthalenedisulfonic acid, 7-hydroxy-8-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo] - (9CI) (CA INDEX NAME)



L22 ANSWER 5 OF 86 CAPLUS COPYRIGHT 2003 ACS
 AN 2002:646448 CAPLUS
 DN 137:326547
 TI Synthesis and dyeing performance of acid dyes based on
 N-[3-hydroxyphenyl]-8-quinoline sulfonamide system on various fabrics
 AU Vashi, Mukesh N.; Mehta, Arvind G.
 CS Chemistry Department, P.T. Sarvajani College of Science, Surat, 395 001,
 India
 SO Asian Journal of Chemistry (2002), 14(3-4), 1479-1482
 CODEN: AJCHEW; ISSN: 0970-7077
 PB Asian Journal of Chemistry
 DT Journal
 LA English
 AB N-(3-Hydroxyphenyl)-8-quinolinesulfonamide (I), used as the coupling
 component, was prepd. by condensing 8-quinolinesulfonyl chloride with
 3-aminophenol. Fifteen N-[4-(aryazo)-3-hydroxyphenyl]-8-
 quinolinesulfonamide acid dyes were prepd. by coupling I with various
 arom. diazo components. The dyes were characterized by elemental and
 spectral anal. and their dyeing performance on silk, wool, and nylon
 fabrics was assessed.
 IT 473723-22-7P
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material

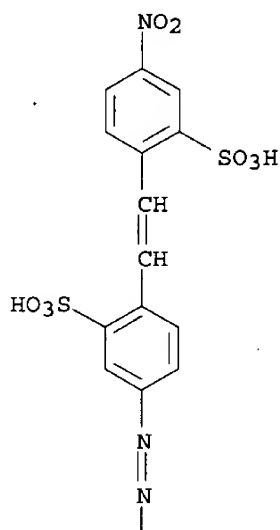
09567863

use); PREP (Preparation); USES (Uses)
(dark brown **dye**; prepn. of acid azo dyes using
hydroxyphenylquinolinesulfonamide coupling component)

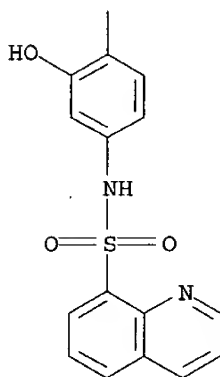
RN 473723-22-7 CAPLUS

CN Benzenesulfonic acid, 5-[[2-hydroxy-4-[(8-quinolinylsulfonyl)amino]phenyl]
azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



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RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 6 OF 86 CAPLUS COPYRIGHT 2003 ACS

AN 2001:868591 CAPLUS

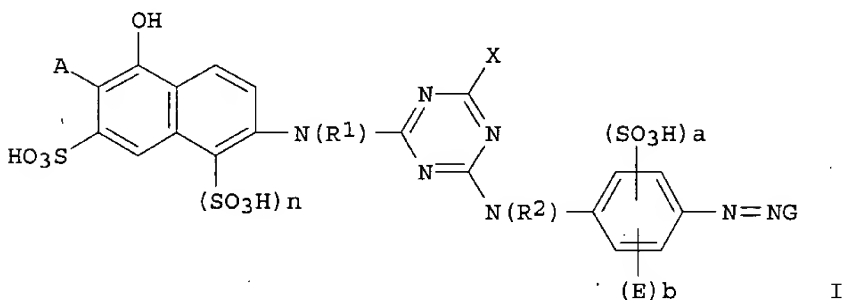
DN 136:7641

TI Reactive disazo dyes, their production and their use

09567863

IN Ebenezer, Warren James
PA Dystar Textilfarben G.m.b.H. & Co. Deutschland K.-G., Germany
SO PCT Int. Appl., 44 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001090256	A1	20011129	WO 2001-EP5552	20010516
	W:				
	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW:				
	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
PRAI	GB 2000-12551	A	20000523		
OS	MARPAT 136:7641				
GI					

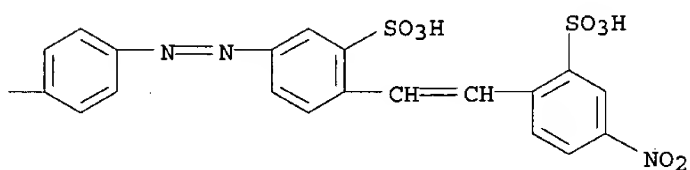
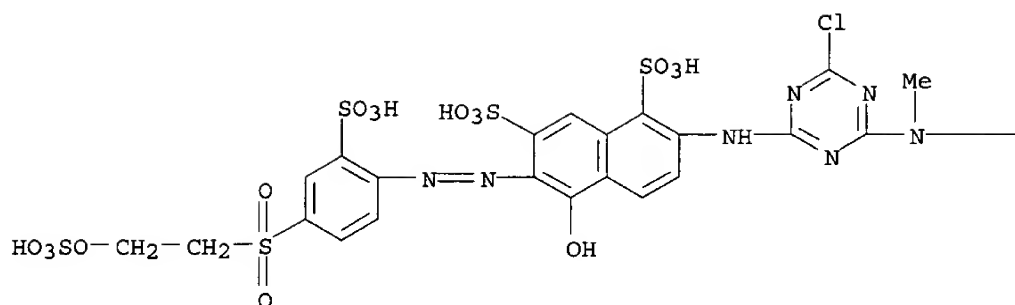


AB Reactive azo dyes (I; A = sulfonated phenylazo or 2-naphthylazo; E = alkyl, alkoxy, alkylthio, amino, acylamino, ureido; G = optionally substituted arom. or heterocyclic group; R1, R2 = H, optionally substituted alkyl or phenyl; X = F, Cl, OH, alkoxy, aryloxy, optionally substituted amino, N heterocycle, ammonio, SH, thioalkyl, thioaryl; a = 0-2; b = 0-2; n = 0-1) or their salts are obtained for dyeing of fabrics with good fastness properties. In an example, 2-amino-5-hydroxy-1,7-naphthalenedisulfonic acid was condensed (1:1) with cyanuric chloride and the product was coupled with diazotized 2-amino-5-(2-sulfatoethylsulfonyl)benzenesulfonic acid to give a dichlorotriazinyl monoazo dye. This dye was condensed with 2-(2-sulfo-4-nitrophenylamino)-5-amino-1,4-benzenedisulfonic acid.fwdarw.m-ureidoaniline to provide a disazo reactive dye (.lambda.max 470 nm).

IT 375825-88-0P 375825-98-2P 375825-99-3P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(dye; prodn. of reactive disazo dyes for application to fabrics)

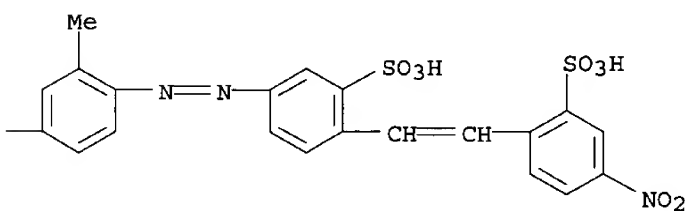
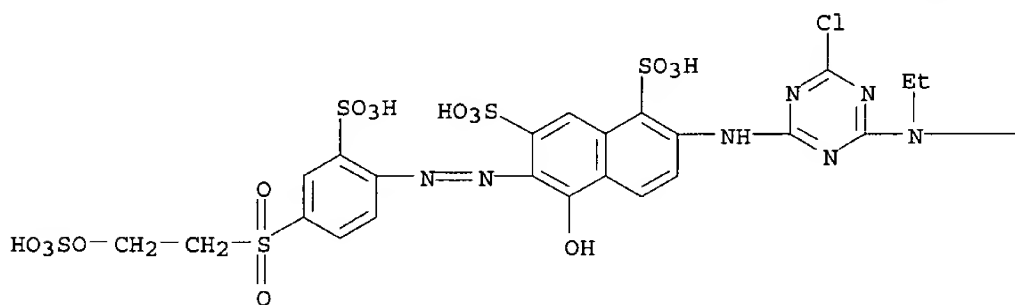
RN 375825-88-0 CAPLUS

CN 1,7-Naphthalenedisulfonic acid, 2-[[4-chloro-6-[methyl[4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]amino]-1,3,5-triazin-2-yl]amino]-5-hydroxy-6-[[2-sulfo-4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]-(9CI) (CA INDEX NAME)



RN 375825-98-2 CAPLUS

CN 1,7-Naphthalenedisulfonic acid, 2-[[4-chloro-6-[ethyl[3-methyl-4-[[4-[2-(4-nitro-2-sulphophenyl)ethenyl]-3-sulphophenyl]azo]phenyl]amino]-1,3,5-triazin-2-yl]amino]-5-hydroxy-6-[[2-sulfo-4-[[2-(sulfoxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

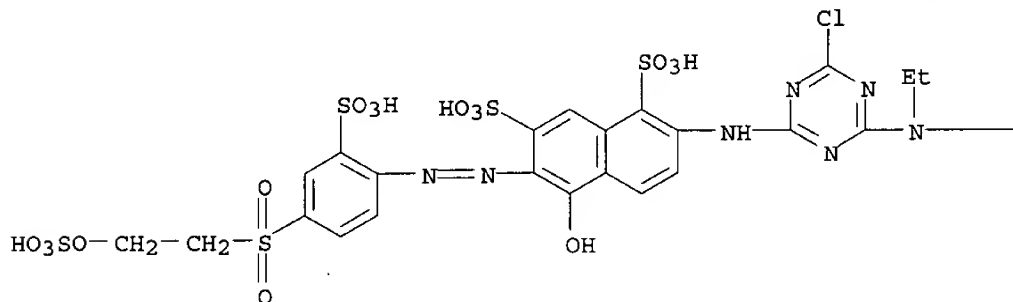


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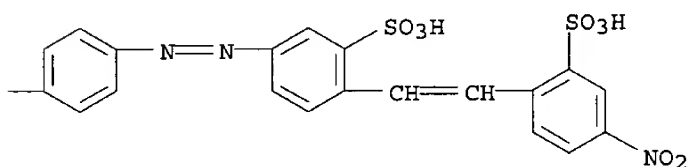
RN 375825-99-3 CAPLUS

CN 1,7-Naphthalenedisulfonic acid, 2-[[4-chloro-6-[ethyl[4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]amino]-1,3,5-triazin-2-yl]amino]-5-hydroxy-6-[[2-sulfo-4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]-(9CI) (CA INDEX NAME)

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PAGE 1-B



RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 7 OF 86 CAPLUS COPYRIGHT 2003 ACS

AN 2001:64273 CAPLUS

DN 134:132920

TI Manufacture of water-soluble polyazo dyes useful for poly(vinyl alcohol)-based polarizing films in liquid crystal projector green channels

IN Oiso, Shoji; Ishii, Kumiko; Kajiwar, Yoshitaka; Tabei, Toru

PA Nippon Kayaku Kabushiki Kaisha, Japan

SO PCT Int. Appl., 40 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

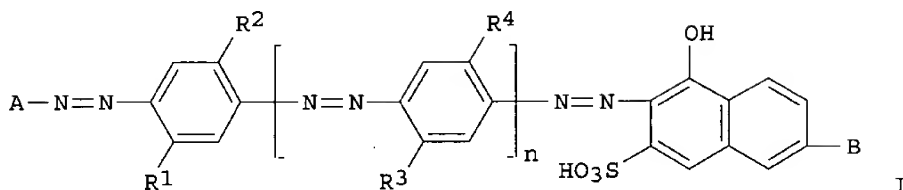
FAN.CNT 1

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PI	WO 2001006281	A1	20010125	WO 2000-JP4658	20000712
	W: CA, CN, KR, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	JP 2001027708	A2	20010130	JP 1999-200435	19990714
	JP 2001033627	A2	20010209	JP 1999-211148	19990726
	JP 2001056412	A2	20010227	JP 1999-234058	19990820
	EP 1203969	A1	20020508	EP 2000-946278	20000712
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
PRAI	JP 1999-200435	A	19990714		

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JP 1999-211148 A 19990726
JP 1999-234058 A 19990820
WO 2000-JP4658 W 20000712

OS MARPAT 134:132920
GI



AB The polyazo dyes having max. absorption wave length 520-580 nm are compds. of AN:NX(N:NZ)nN:NYB type {when A = sulfonic acid-contg. Ph, B = amino- or OH-contg. benzamide; n = 1; when A = 4-[2'-(4''-amino(or nitro)-2''-sulfonatophenyl)ethenyl]-3-sulfonatophenyl group, B = optionally ring-substituted N:NPh group; n = 0, 1; X, Z = phenylene or substituted phenylene; Y = 2-hydroxy-8-sulfonatonaphthalene-1,5-diyl group}.

IT 321859-89-6P 321859-90-9P 321864-85-1P

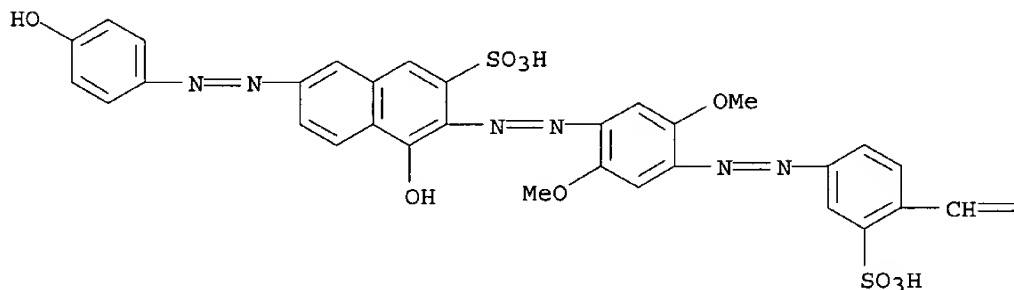
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

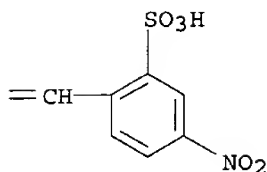
(triazazo dye; manuf. of water-sol. polyazo dyes useful for poly(vinyl alc.)-based polarizing films in liq. crystal projector green channels)

RN 321859-89-6 CAPLUS

CN 2-Naphthalenesulfonic acid, 3-[[[2,5-dimethoxy-4-[[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]-4-hydroxy-7-[(4-hydroxyphenyl)azo]- (9CI) (CA INDEX NAME)

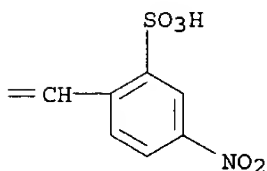
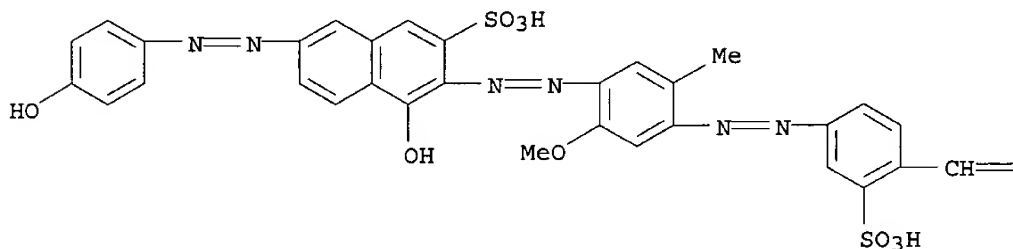
PAGE 1-A





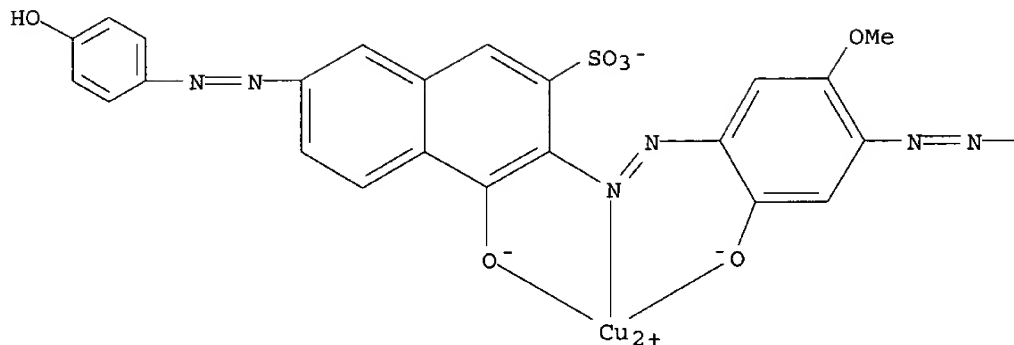
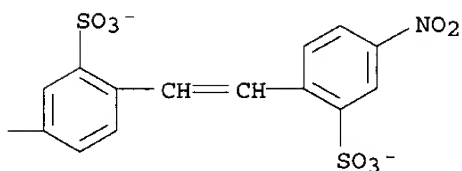
RN 321859-90-9 CAPLUS

CN 2-Naphthalenesulfonic acid, 4-hydroxy-7-[(4-hydroxyphenyl)azo]-3-[[2-methoxy-5-methyl-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]- (9CI) (CA INDEX NAME)



RN 321864-85-1 CAPLUS

CN Cuprate(3-), [4-(hydroxy-.kappa.O)-3-[[2-(hydroxy-.kappa.O)-5-methoxy-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo-.kappa.N1]-7-[(4-hydroxyphenyl)azo]-2-naphthalenesulfonato(5-)]-, trihydrogen (9CI) (CA INDEX NAME)

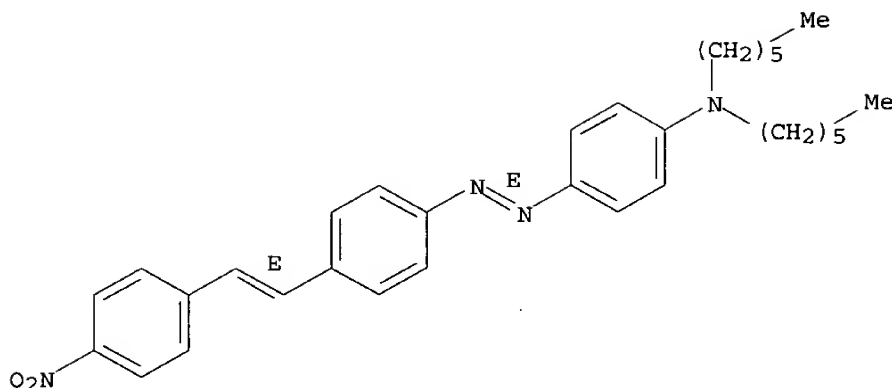
● 3 H⁺

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 8 OF 86 CAPLUS COPYRIGHT 2003 ACS
 AN 2002:79704 CAPLUS
 DN 136:311200
 TI New aromatic azo compounds: syntheses and liquid-crystalline properties
 AU Krohn, K.; John, M.; Demikhov, E. I.
 CS Department of Chemistry and Chemical Technology, University of Paderborn,
 Paderborn, D-33098, Germany
 SO Russian Chemical Bulletin (Translation of Izvestiya Akademii Nauk, Seriya
 Khimicheskaya) (2001), 50(7), 1248-1254
 CODEN: RCBUEY; ISSN: 1066-5285
 PB Kluwer Academic/Consultants Bureau
 DT Journal
 LA English
 AB The chem. syntheses of 12 new azo dyes are reported. The optically active
 compds. were prepd. by the Mitsunobu reaction, amide formation, and
 esterification with optically active alcs. or acids. Several new compds.
 showed liq.-cryst. properties, and their phase transition behavior was
 investigated.
 IT **411209-70-6P**
 RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or
 engineered material use); PREP (Preparation); USES (Uses)
 (ruby red liq. cryst. dye; prepn. and properties of azo dyes)
 RN 411209-70-6 CAPLUS
 CN Benzenamine, N,N-dihexyl-4-[(1E)-[4-[(1E)-2-(4-
 nitrophenyl)ethenyl]phenyl]azo]- (9CI) (CA INDEX NAME)

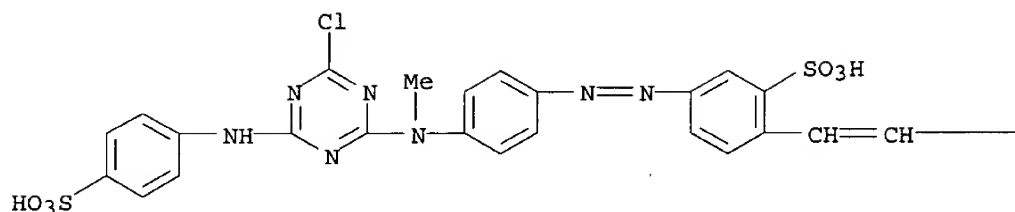
09567863

Double bond geometry as shown.

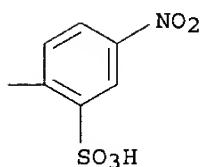


RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 9 OF 86 CAPLUS COPYRIGHT 2003 ACS
AN 2002:46106 CAPLUS
DN 137:34444
TI 4-(Dimethylamino)pyridino-s-triazinyl reactive dyes
AU Greaves, A. J.; Morris, K. F.
CS Department of Colour Chemistry, University of Leeds, Leeds, LS2 9JT, UK
SO Advances in Colour Science and Technology (2001), 4(4), 130-133
CODEN: ACOSF9; ISSN: 1462-4761
PB University of Leeds, Dep. of Colour Chemistry
DT Journal
LA English
OS CASREACT 137:34444
AB Triazine-based reactive azo dyes contg. either one or two
4-(dimethylamino)pyridinio (DMAP) groups were synthesized and their lab.
dyeings on cotton compared, over a wide range of pH and temp. conditions,
against conventional mono- and dichlorotriazinyl reactive dyes. The poor
performance of a **dye** contg. a single DMAP leaving group implies
that mono-4-(dimethylamino)pyridinio-s-triazine-based reactive dyes would
give significantly poorer performance than an analogous
monochloro-s-triazinyl based reactive dyes. The unexpected alk. stability
of the bis[4-(dimethylamino)pyridinio]-s-triazine-based reactive
dye implies that these may be of use in reactive **dye**
chem.
IT 436805-47-9P
RL: RCT (Reactant); SPN (Synthetic preparation); TEM (Technical or
engineered material use); PREP (Preparation); RACT (Reactant or reagent);
USES (Uses)
(orange **dye**; prepn. of triazine-contg. reactive azo dyes for
cotton)
RN 436805-47-9 CAPLUS
CN Benzenesulfonic acid, 5-[[4-[[4-chloro-6-[(4-sulfophenyl)amino]-1,3,5-
triazin-2-yl]methylamino]phenyl]azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]]-
, trisodium salt (9CI) (CA INDEX NAME)



● 3 Na

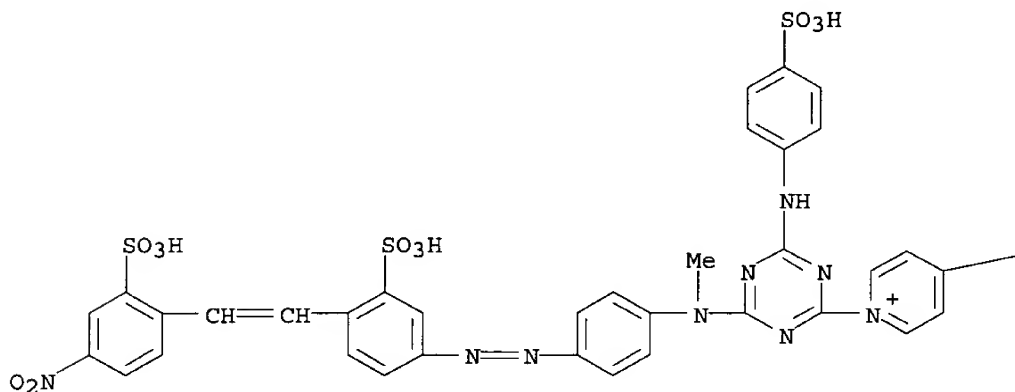


IT 436805-48-0P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(orange dye; prepn. of triazine-contg. reactive azo dyes for cotton)

RN 436805-48-0 CAPLUS

CN Pyridinium, 4-(dimethylamino)-1-[4-[methyl[4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]amino]-6-[(4-sulfophenyl)amino]-1,3,5-triazin-2-yl]-, chloride, trisodium salt (9CI)
(CA INDEX NAME)

● Cl⁻

—NMe2

● 3 Na

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 10 OF 86 CAPLUS COPYRIGHT 2003 ACS

AN 2000:790749 CAPLUS

DN 133:357088

TI Polariser

IN Khan, Ir Gvon; Vorozhtsov, Georgy Nikolaevich; Shishkina, Elena Jurievna; Popov, Sergei Igorevich; Masanova, Nataliya Nikolaevna; Miroshin, Alexandr Alexandrovich

PA Gosudarstvenny Nauchny Tsentr Rossiiskoi Federatsii Niopik (Gnts Rf Niopik), Russia

SO PCT Int. Appl., 29 pp.

CODEN: PIXXD2

DT Patent

LA Russian

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000067069	A1	20001109	WO 2000-RU155	20000427
	W: CA, CN, JP, KR, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	RU 2152634	C1	20000710	RU 1999-108811	19990429
PRAI	RU 1999-108811	A	19990429		
	RU 1999-126451	A	19990802		
OS	MARPAT 133:357088				
AB	Polarizers based on polymeric films including dichroic dyes are described in which .gtoreq.1 dichroic dye is used in the form of an org. and/or asym. mixed salt of a dichroic anionic dye, including a polymer structure and/or a dichroic dye assoc. with a surfactant ion and/or an amphoteric surfactant substance. The use of the dichroic dyes acts to improve polarization characteristics and results in the prodn. of defect-free highly efficient polarizers having a high thermal stability as well as a good resistance to the action of humidity.				
IT	306772-13-4 306772-14-5 306772-19-0 306772-20-3 306772-26-9 306772-27-0 306772-34-9 306772-35-0				
	RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)				
	(polarizers using dichroic dye salts)				
RN	306772-13-4 CAPLUS				
CN	Cuprate(4-), ammine[3-[[4-[(4-chloro-3-sulfohenyl)azo]-2-(hydroxy-.kappa.O)-5-methylphenyl]azo-.kappa.N1]-4-(hydroxy-.kappa.O)-7-[[4-[2-(4-nitro-2-sulfohenyl)ethenyl]-3-sulfohenyl]azo]-2-naphthelenesulfonato(6-				

09567863

)]-, dilithium dihydrogen, compd. with 2,2'-iminobis[ethanol] (1:2) (9CI)
(CA INDEX NAME)

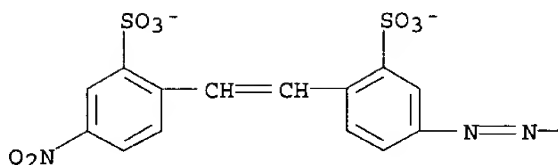
CM 1

CRN 306772-12-3

CMF C37 H23 Cl Cu N8 O16 S4 . 2 H . 2 Li

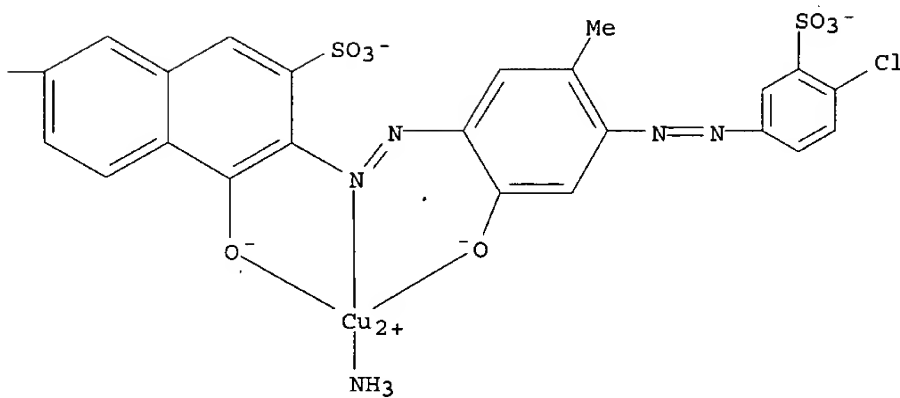
CCI CCS

PAGE 1-A



● 2 H⁺

PAGE 1-B



PAGE 2-A

● 2 Li⁺

●2 Li⁺

CM 2

CRN 111-42-2

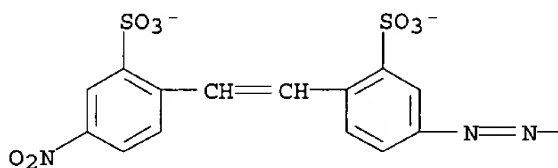
CMF C4 H11 N O2

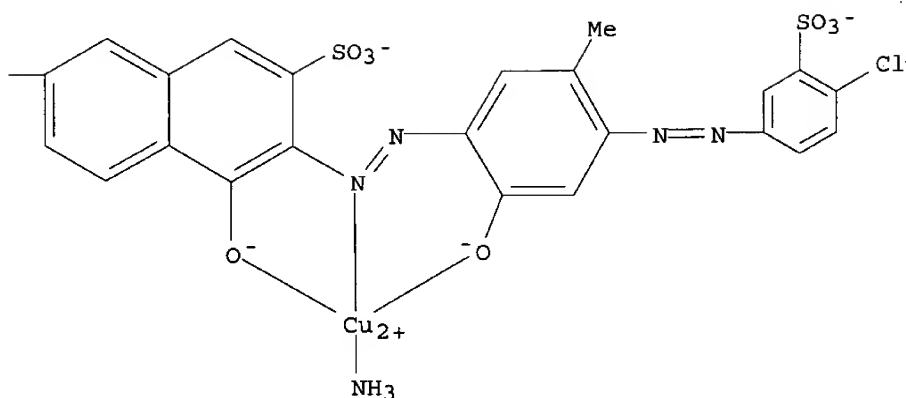
HO-CH₂-CH₂-NH-CH₂-CH₂-OH

RN 306772-14-5 CAPLUS

CN Cuprate(4-), ammine[3-[[4-[[4-chloro-3-sulfo-phenyl]azo]-2-(hydroxy-
 .kappa.O)-5-methylphenyl]azo-.kappa.N1]-4-(hydroxy-.kappa.O)-7-[[4-[2-(4-
 nitro-2-sulfo-phenyl)ethenyl]-3-sulfo-phenyl]azo]-2-naphthelenesulfonato(6-
)].-, tetrasodium (9CI) (CA INDEX NAME)

PAGE 1-A

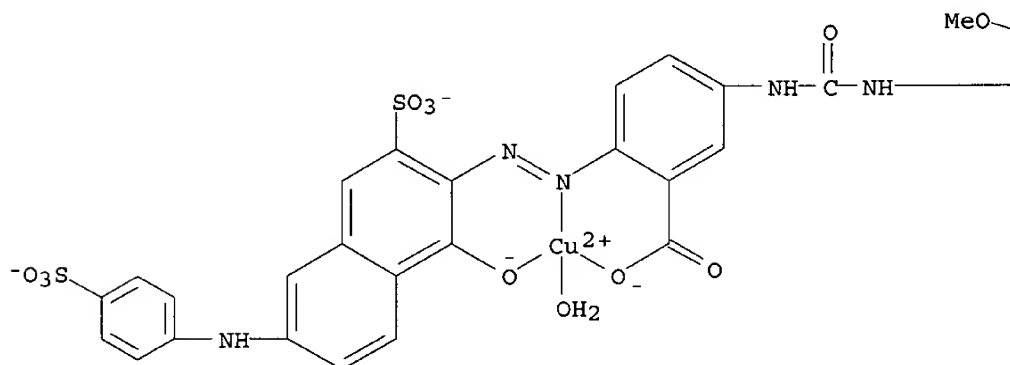
●4 Na⁺



RN 306772-19-0 CAPLUS
 CN Cuprate(4-), aqua[2-[[1-(hydroxy-.kappa.O)-3-sulfo-6-[(4-sulfophenyl)amino]-2-naphthalenyl]azo-.kappa.N1]-5-[[[2-methoxy-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]-ONN-azoxy]phenyl]amino]carbonyl]amino]benzoato(6-)-.kappa.O]-, ammonium trihydrogen, compd. with 2-[2-(2-aminoethoxy)ethoxy]ethanol (1:3) (9CI)
 (CA INDEX NAME)

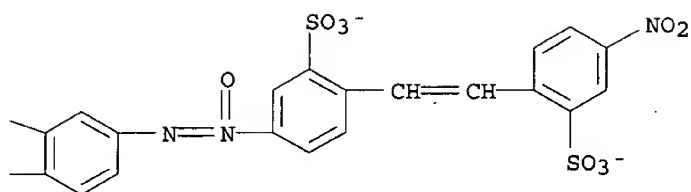
CM 1

CRN 306772-18-9
 CMF C45 H30 Cu N8 O21 S4 . H4 N . 3 H
 CCI CCS



09567863

PAGE 1-B

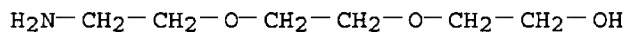


● NH₄⁺

CM 2

CRN 6338-55-2

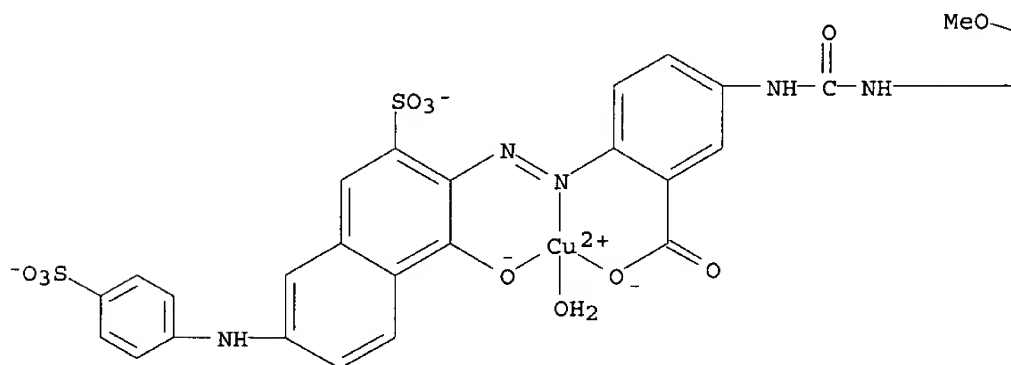
CMF C6 H15 N O3



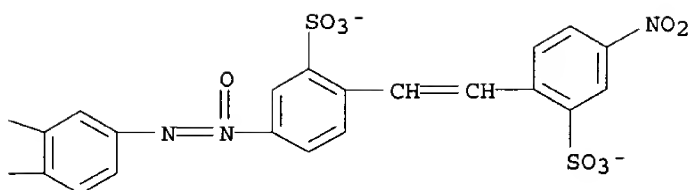
RN 306772-20-3 CAPLUS

CN Cuprate(4-), aqua [2-[[[1-(hydroxy-.kappa.O)-3-sulfo-6-[(4-sulfo-phenyl)amino]-2-naphthalenyl]azo-.kappa.N1]-5-[[[2-methoxy-4-[[4-[2-(4-nitro-2-sulfo-phenyl)ethenyl]-3-sulfo-phenyl]-ONN-azoxy]phenyl]amino]carbonyl]amino]benzoato(6-)-.kappa.O]-, tetrasodium (9CI) (CA INDEX NAME)

PAGE 1-A



4 Na⁺



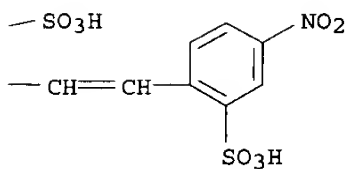
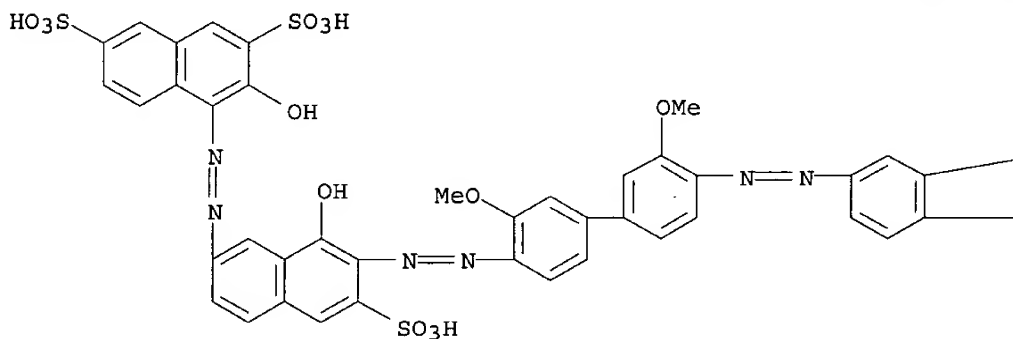
RN 306772-26-9 CAPLUS

CN 2,7-Naphthalenedisulfonic acid, 4-[[7-[[3,3'-dimethoxy-4'-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo][1,1'-biphenyl]-4-yl]azo]-8-hydroxy-6-sulfo-2-naphthalenyl]azo]-3-hydroxy-, compd. with
29-amino-3,6,9,12,15,18,21,24,27-nonaoxanonacosan-1-ol (1:5) (9CI) (CA
INDEX NAME)

CM 1

CRN 306772-25-8

CMF C48 H35 N7 O21 S5

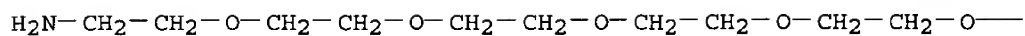


CM 2

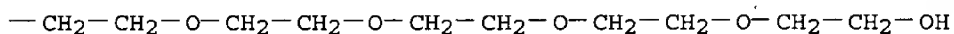
09567863

CRN 129449-09-8
CMF C20 H43 N O10

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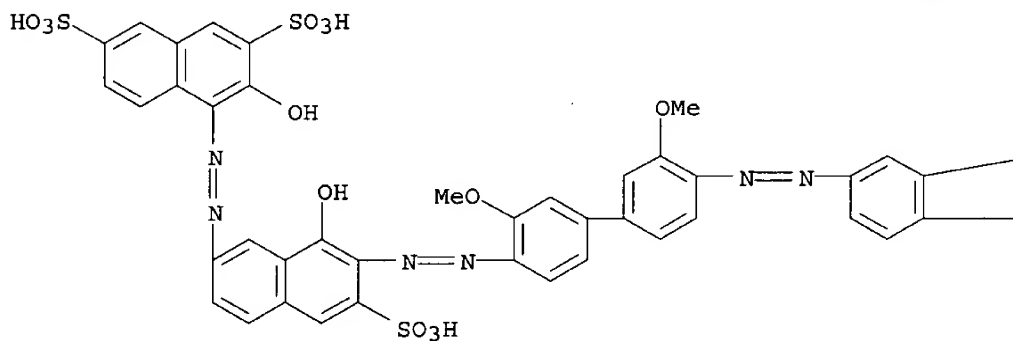


PAGE 1-B



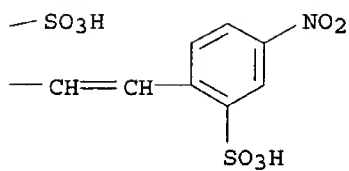
RN	306772-27-0	CAPLUS
CN	2,7-Naphthalenedisulfonic acid, 4-[[7-[[3,3'-dimethoxy-4'-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo][1,1'-biphenyl]-4-yl]azo]-8-hydroxy-6-sulfo-2-naphthalenyl]azo]-3-hydroxy-, pentasodium salt (9CI)	
	(CA INDEX NAME)	

PAGE 1-A



●5 Na

PAGE 1-B



RN 306772-34-9 CAPLUS

09567863

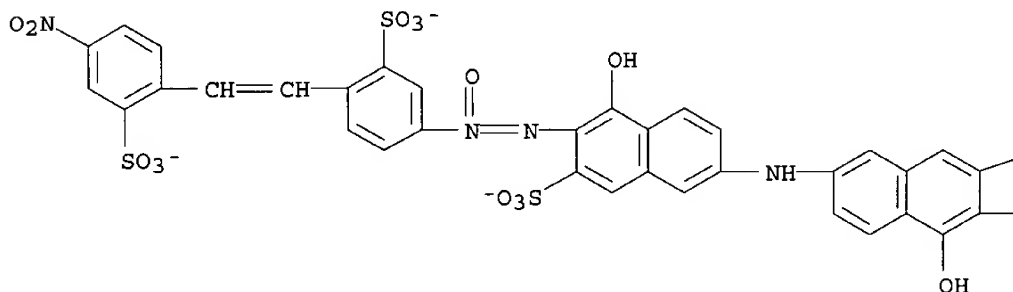
CN Phosphonium, trimethyl(phenylmethyl)-, salt with 7,7'-iminobis[4-hydroxy-3-
[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]-ONN-azoxy]-2-
naphthalenesulfonic acid] (6:1) (9CI) (CA INDEX NAME)

CM 1

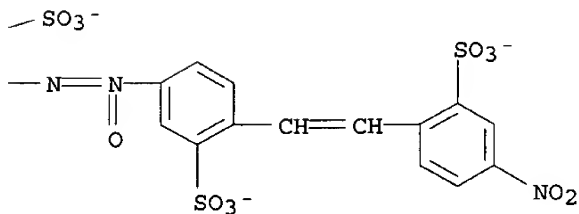
CRN 306772-33-8

CMF C48 H27 N7 O26 S6

PAGE 1-A



PAGE 1-B



CM 2

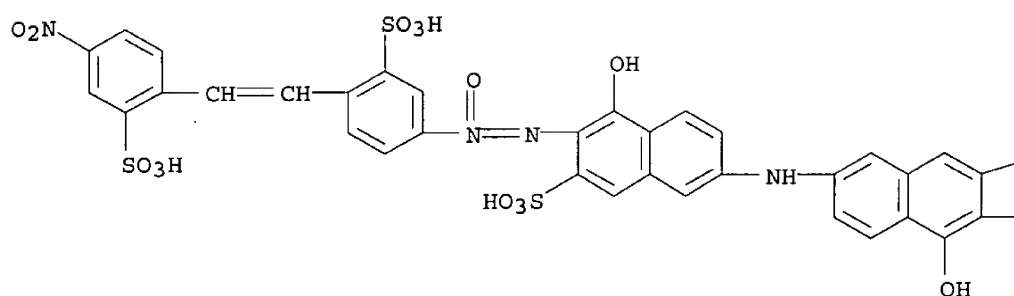
CRN 24422-67-1

CMF C10 H16 P

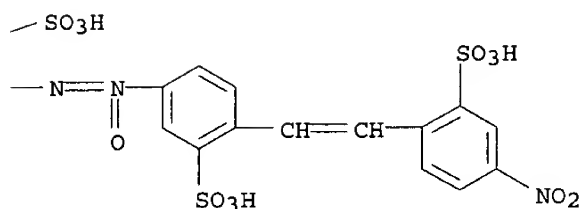
Me₃⁺P-CH₂-Ph

RN 306772-35-0 CAPLUS

CN 2-Naphthalenesulfonic acid, 7,7'-iminobis[4-hydroxy-3-[[4-[2-(4-nitro-2-
sulfophenyl)ethenyl]-3-sulfophenyl]-ONN-azoxy]-, hexasodium salt (9CI)
(CA INDEX NAME)



● 6 Na



RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 11 OF 86 CAPLUS COPYRIGHT 2003 ACS

AN 1999:498596 CAPLUS

DN 131:177433

TI **Dye**-containing neutral-color light polarizing polymer film for liquid crystal display

IN Ishii, Kumiko; Ooiso, Shoji; Matsushita, Yoshiaki

PA Nippon Kayaku Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

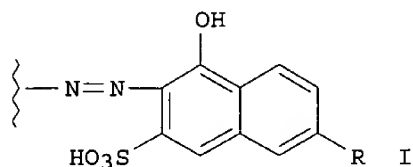
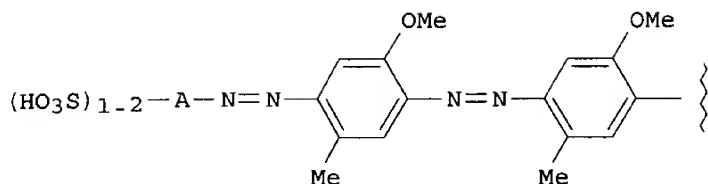
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11218611	A2	19990810	JP 1998-32408	19980130
PRAI	JP 1998-32408		19980130		
OS	MARPAT 131:177433				
GI					



AB The dye-contg. light polarizing polymer film has a water sol. dye I (A = benzene ring; R = amino, Me amino, Et amino, Ph amino) or the salt of I and an org. dye having a light absorption range different from that of I. The polarizing polymer film shows the excellent polarizing characteristics, moisture-resistance, and heat-resistance.

IT 121227-50-7

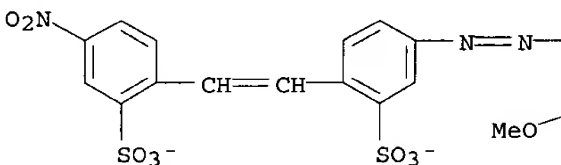
RL: TEM (Technical or engineered material use); USES (Uses)

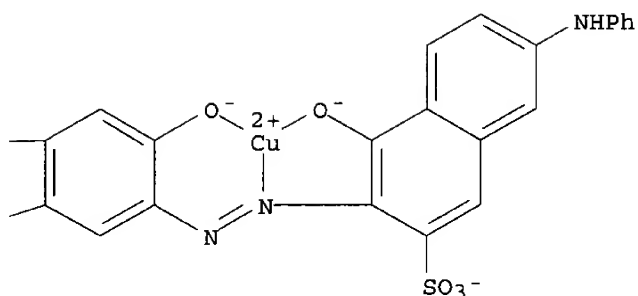
(dye for neutral-color light polarizing polymer film)

RN 121227-50-7 CAPLUS

CN Cuprate(3-), [4-(hydroxy-.kappa.O)-3-[[2-(hydroxy-.kappa.O)-5-methoxy-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo-.kappa.N1]-7-(phenylamino)-2-naphthalenesulfonato(5-)]-, dihydrogen (9CI)
(CA INDEX NAME)

PAGE 1-A





L22 ANSWER 12 OF 86 CAPLUS COPYRIGHT 2003 ACS

AN 1999:99926 CAPLUS

DN 130:213089

TI Decolorization of dyeing wastewater with potassium permanganate

AU Xu, Xiangrong; Wang, Wenhua; Li, Huabin; Yang, Hongwei; Shi, Xinwen

CS State Key Laboratory of Environmental Aquatic Chemistry, Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, Beijing, 100085, Peop. Rep. China

SO Huanjing Huaxue (1999), 18(1), 57-60

CODEN: HUHADB; ISSN: 0254-6108

PB Kexue Chubanshe

DT Journal

LA Chinese

AB The decolorization of dyeing wastewater with K permanganate was studied. The best pH for decolorization is <1.5 and the concn. of K permanganate has significant effect on decolorization. Twelve types of simulated dyeing wastewater, sep. prepd. with reactive, acidic, direct and cationic dyes, were decolorized. K permanganate decolorizes most dyeing wastewaters. The result of total org. C shows that K permanganate cannot degrade dyes in wastewater completely.

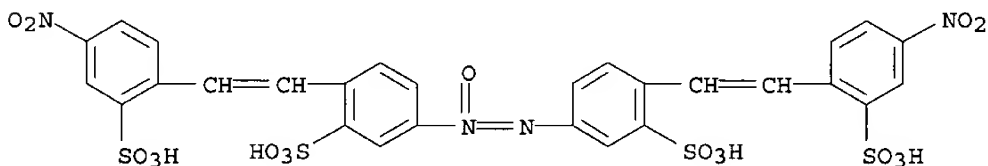
IT 93464-81-4, Direct Yellow R

RL: REM (Removal or disposal); PROC (Process)

(Direct Yellow R; decolorization of dye wastewater with potassium permanganate)

RN 93464-81-4 CAPLUS

CN Benzenesulfonic acid, 3,3'-azoxybis[6-[2-(4-nitro-2-sulfophenyl)ethenyl]-, tetrasodium salt (9CI) (CA INDEX NAME)



● 4 Na

L22 ANSWER 13 OF 86 CAPLUS COPYRIGHT 2003 ACS

AN 1998:605062 CAPLUS

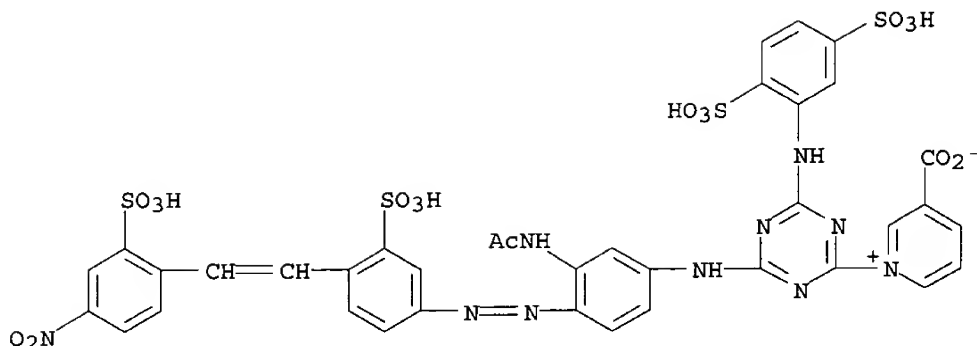
DN 129:231948

TI Reactive dyeing of pretreated textiles

09567863

IN Collins, Geoffrey William; Burkinshaw, Stephen Martin; Gordon, Roy
 PA Imperial Chemical Industries PLC, UK
 SO PCT Int. Appl., 31 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9837270	A1	19980827	WO 1998-GB499	19980218
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	ZA 9801351	A	19980824	ZA 1998-1351	19980218
	AU 9861073	A1	19980909	AU 1998-61073	19980218
	AU 741470	B2	20011129		
	EP 960233	A1	19991201	EP 1998-905505	19980218
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	BR 9807719	A	20000215	BR 1998-7719	19980218
	JP 2001512536	T2	20010821	JP 1998-536373	19980218
	US 2001054209	A1	20011227	US 1999-379287	19990823
PRAI	GB 1997-3813	A	19970224		
	WO 1998-GB499	W	19980218		
AB	Cellulosic materials are dyed with reactive dyes by pretreating the fabric with a polycationic polymeric agent which is desirably also polynucleophilic. The agent can be a polyquaternary amine material esp. a poly(DADMAC) or poly(vinylpyridine), particularly one including nucleophilic sites such as primary amino groups, e.g. allylamine/DADMAC copolymers (I) and polyvinylpyridines quaternized with .omega.-aminoalkyl groups. The dyes can react with the nucleophilic centers so dyebath exhaustion can be driven by dye fixation rather than substantivity to the substrate. The need to use of salts to drive substantivity can be obviated and post dyeing washing to remove unreacted/hydrolyzed dye is much simplified. Material dyed by the method has the good wash fastness properties of materials dyed using reactive dyes. A wide variety of cellulosic substrates can be dyed including lyocell fiber materials and blend/union materials with polyamides. Examples are given for cotton, lyocell/wool, and other blends using I or quaternized poly(4-vinylpyridine) contg. 2-aminoethyl groups as pretreating agents.				
IT	160170-74-1, Kayacelonreact Golden Yellow CNGL RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses) (dye; cationic polymers for pretreatment of textiles for reactive dyeing)				
RN	160170-74-1 CAPLUS				
CN	Pyridinium, 1-[4-[[3-(acetylamino)-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]amino]-6-[(2,5-disulfophenyl)amino]-1,3,5-triazin-2-yl]-3-carboxy-, inner salt, tetrasodium salt (9CI) (CA INDEX NAME)				



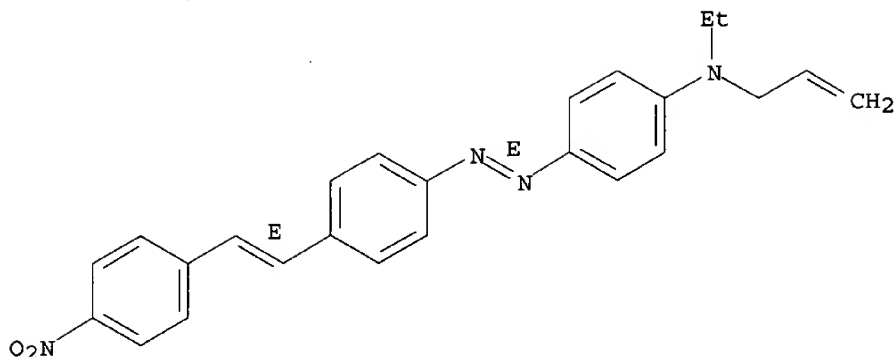
● 4 Na

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 14 OF 86 CAPLUS COPYRIGHT 2003 ACS
AN 1998:639262 CAPLUS
DN 130:88057
TI Azo Dyes as Side Chains in Liquid Crystalline Oligomers for Holographic Application
AU Haak, Oliver; Jeoung, Cheung-Bok; Pawlik, Andreas; Boldt, Peter; Grahn, Walter; Kreuzer, Franz-Heinrich; Leigeber, Horst; Weitzel, Hans-Peter
CS Institute fur Organische Chemie, Technische Universitat Braunschweig, Braunschweig, D-38092, Germany
SO Journal of Chemical Research, Synopses (1998), (10), 630-631, 2701-2725, 2727-2729, 2731-2735
CODEN: JRPSDC; ISSN: 0308-2342
PB Royal Society of Chemistry
DT Journal
LA English
AB In a systematic study on materials for holog. data storage, a wide variety of azo dyes of different shapes and optical properties were covalently bound to cholesteric liq. cryst. oligosiloxanes; some of these materials exhibit high holog. efficiency and/or sensitivity but no general correlation between the holog. writing efficiency and/or the sensitivity with the structure was found.
IT **218599-18-9D**, reaction product with tetramethylcyclotetrasiloxane and diphenyl- and cholestanylbenzoate derivs. **218599-19-0D**, reaction product with tetramethylcyclotetrasiloxane and diphenyl- and cholestanylbenzoate derivs.
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(holog. data storage materials based on substituted cholesteric liq. cryst. oligosiloxanes contg. azo dye substituents)
RN 218599-18-9 CAPLUS
CN Benzenamine, N-ethyl-4-[(1E)-[4-[(1E)-2-(4-nitrophenyl)ethenyl]phenyl]azo]-N-2-propenyl- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

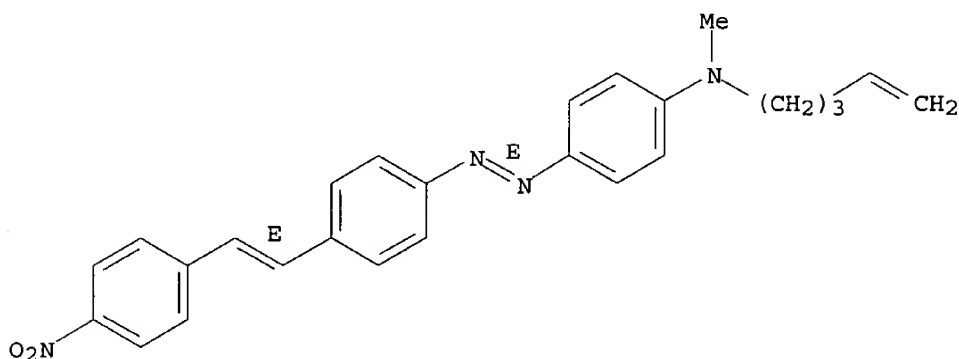
09567863



RN 218599-19-0 CAPLUS

CN Benzenamine, N-methyl-4-[(1E)-[4-[(1E)-2-(4-nitrophenyl)ethenyl]phenyl]azo]-N-4-pentenyl- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



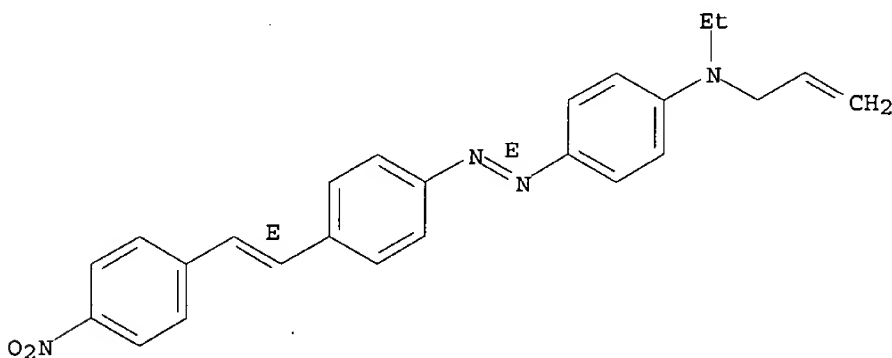
IT 218599-18-9P 218599-19-0P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and optical properties of azo dyes for development of holog.
data storage materials based on substituted cholesteric liq. cryst.
oligosiloxanes)

RN 218599-18-9 CAPLUS

CN Benzenamine, N-ethyl-4-[(1E)-[4-[(1E)-2-(4-nitrophenyl)ethenyl]phenyl]azo]-N-2-propenyl- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

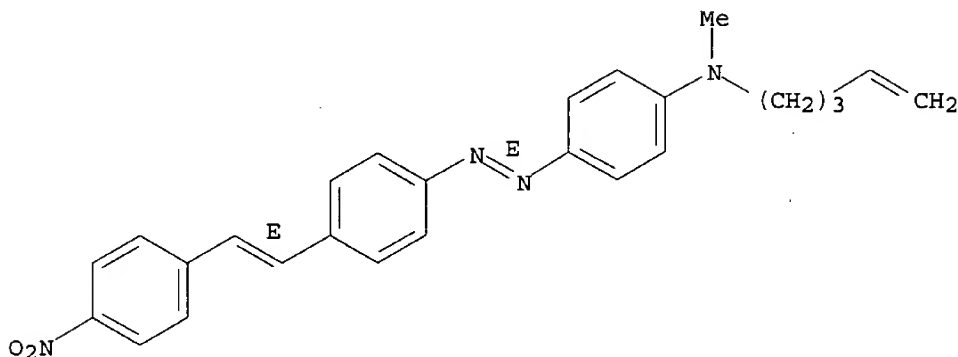


09567863

RN 218599-19-0 CAPLUS

CN Benzenamine, N-methyl-4-[(1E)-[4-[(1E)-2-(4-nitrophenyl)ethenyl]phenyl]azo
]-N-4-pentenyl- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



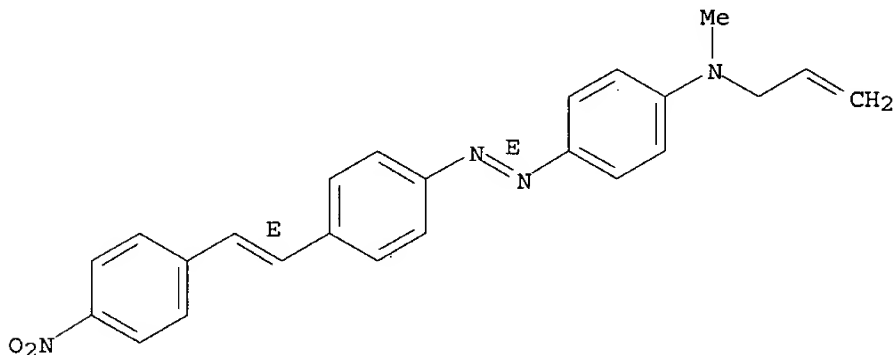
IT 218599-17-8P 218599-27-0P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of azo dyes for development of holog. data storage materials
based on substituted cholesteric liq. cryst. oligosiloxanes)

RN 218599-17-8 CAPLUS

CN Benzenamine, N-methyl-4-[(1E)-[4-[(1E)-2-(4-nitrophenyl)ethenyl]phenyl]azo
]-N-2-propenyl- (9CI) (CA INDEX NAME)

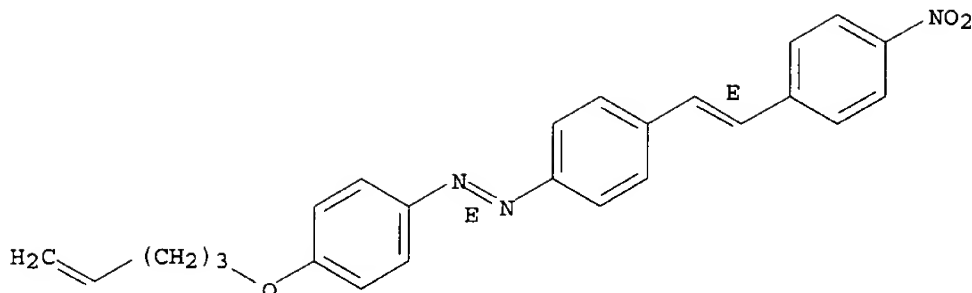
Double bond geometry as shown.



RN 218599-27-0 CAPLUS

CN Diazene, [4-[(1E)-2-(4-nitrophenyl)ethenyl]phenyl][4-(4-
pentyloxy)phenyl]-, (1E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 15 OF 86 CAPLUS COPYRIGHT 2003 ACS

AN 1998:707576 CAPLUS

DN 130:149639

TI Toxic effect of azo dyes to *Scenedesmus obliquus* and relationship between structure and activity

AU Sun, Hongwen; Huang, Guolan; Wang, Chunjie; Song, Wenhua

CS Department of Environmental Science, Nankai University, Tianjin, 300071, Peop. Rep. China

SO Huanjing Kexue (1998), 19(4), 22-25

CODEN: HCKHDV; ISSN: 0250-3301

PB Kexue Chubanshe

DT Journal

LA Chinese

AB The toxic effect of structurally different dyes (9 azo dyes and 2 anthraquinone dyes) on the growth of green algae *Scenedesmus obliquus* was studied. The mechanism of the toxic effect was discussed by analyzing the relationship between toxicity and structure. Forty-eight h EC50 of the 11 dyes was 1.09-41.22 mg L⁻¹. The no. of N=N in an azo mol. and the hydrophilicity and the electronic property of substituted groups affected the toxicity of azo dyes. The toxic mechanism was further confirmed in that N=N is first reduced to -NH₂ and then activated to N(+) ion which was the active form and combined with biomacromols.

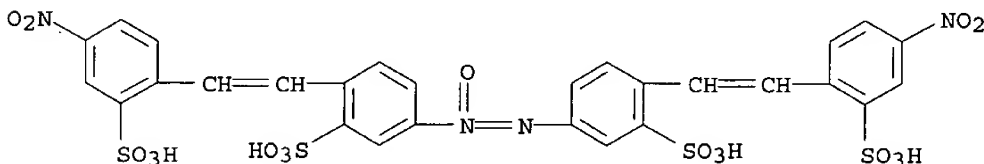
IT 93464-81-4, Direct Yellow R

RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)

(Direct Yellow R; toxic effects of azo dyes and anthraquinone dyes to *Scenedesmus obliquus* and relationship between dye structure and toxicity)

RN 93464-81-4 CAPLUS

CN Benzenesulfonic acid, 3,3'-azoxybis[6-[2-(4-nitro-2-sulfophenyl)ethenyl]]-, tetrasodium salt (9CI) (CA INDEX NAME)



09567863

AN 1997:731920 CAPLUS
DN 128:36071
TI Production method of color filters using ink-jet inks containing amide solvents
IN Matsunaga, Daisaku
PA Nippon Kayaku Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09292516	A2	19971111	JP 1996-129372	19960426
PRAI	JP 1996-129372		19960426		

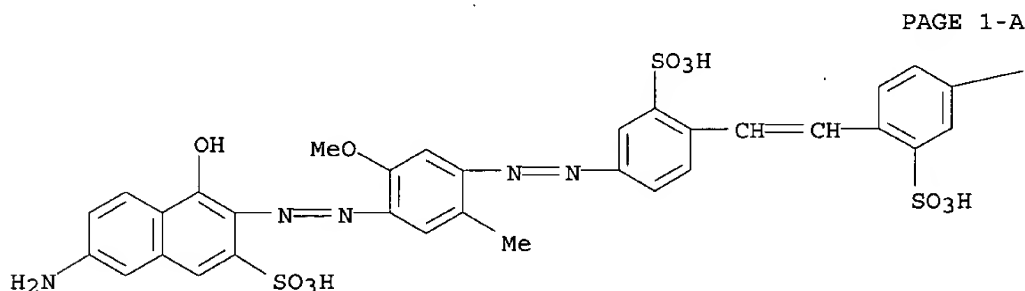
AB Color filters are prepd. by applying ink-jet inks (prepd. by dissolving anionic dyes in aq. amide solvents) on transparent substrates dyeable by anionic dyes, drying, and treating with water. A mixt. of CFR633DHP and a coupling agent was spun-coated on glass and cured with UV to give an anionically dyeable layer, then inks contg. blue, green, and red pigments, resp., dissolved in N-methylpyrrolidone were applied to the substrate, dried, and treated with water to give a three color filter.

IT 199462-68-5

RL: TEM (Technical or engineered material use); USES (Uses)
(prodn. method of color filters using ink-jet inks contg. amide solvents)

RN 199462-68-5 CAPLUS

CN 2-Naphthalenesulfonic acid, 7-amino-4-hydroxy-3-[[2-methoxy-5-methyl-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]-, trisodium salt (9CI) (CA INDEX NAME)



PAGE 1-B

—NO2

L22 ANSWER 17 OF 86 CAPLUS COPYRIGHT 2003 ACS

AN 1997:311600 CAPLUS

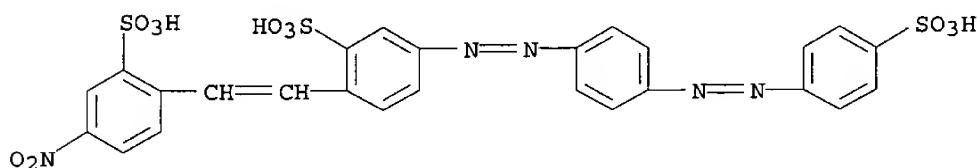
DN 126:294554

TI The analysis of polysulfonated azo dyes by matrix-assisted laser desorption/ionization and electrospray mass spectrometry

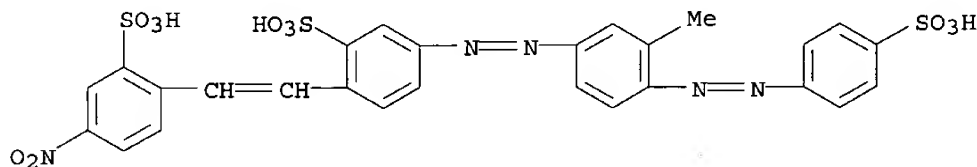
AU Sullivan, Anthony G.; Gaskell, Simon J.

09567863

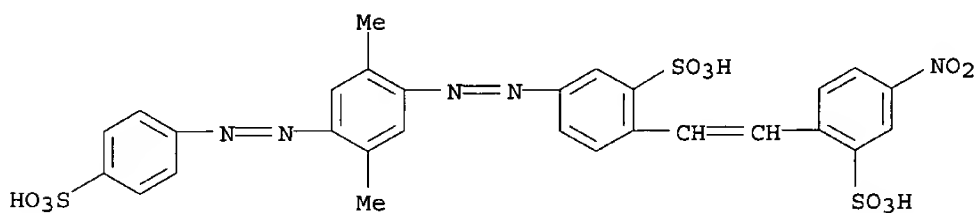
CS Michael Barber Centre Mass Spectrometry, Department Chemistry, UMIST,
Manchester, M60 1QD, UK
SO Rapid Communications in Mass Spectrometry (1997), 11(7), 803-809
CODEN: RCMSEF; ISSN: 0951-4198
PB Wiley
DT Journal
LA English
AB Electrospray ionization and matrix-assisted laser desorption/ionization
have been applied to the anal. of polysulfonated azo dye mixts.
Three homologous orange dyes were synthesized using a harsh, two-stage
process involving a condensation followed by a redn., producing complex
product mixts. The neg.-ion spectra provide clear mol. wt. information
for the components of the mixts. contg. five or six sulfonic acid groups,
allowing rapid identification of product compn. at both the condensation
and redn. stages of synthesis.
IT 189106-25-0 189106-27-2 189106-30-7
RL: ANT (Analyte); ANST (Analytical study)
(anal. of polysulfonated azo dyes by matrix-assisted laser
desorption/ionization and electrospray mass spectrometry)
RN 189106-25-0 CAPLUS
CN Benzenesulfonic acid, 2-[2-(4-nitro-2-sulfophenyl)ethenyl]-5-[[4-[(4-
sulfophenyl)azo]phenyl]azo]- (9CI) (CA INDEX NAME)



RN 189106-27-2 CAPLUS
CN Benzenesulfonic acid, 5-[[3-methyl-4-[(4-sulfophenyl)azo]phenyl]azo]-2-[2-
(4-nitro-2-sulfophenyl)ethenyl]- (9CI) (CA INDEX NAME)

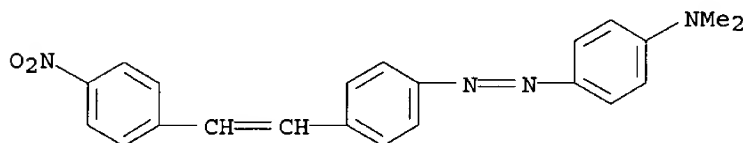


RN 189106-30-7 CAPLUS
CN Benzenesulfonic acid, 5-[[2,5-dimethyl-4-[(4-sulfophenyl)azo]phenyl]azo]-2-
[2-(4-nitro-2-sulfophenyl)ethenyl]- (9CI) (CA INDEX NAME)

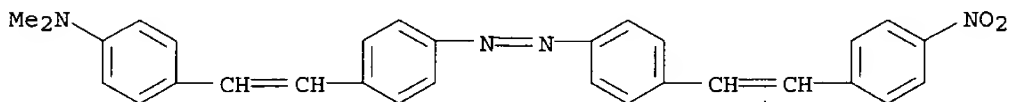


09567863

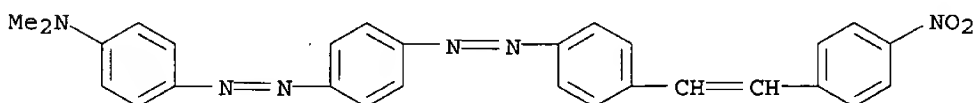
AN 1996:247285 CAPLUS
DN 124:327363
TI Quadratic hyperpolarizabilities of nitro-substituted pseudo-linear dye molecules with ethylenic and azo bridges
AU Shuto, Yoshito
CS NTT Optoelectronics Lab., Nippon Telegraph and Telephone Corp., Tokai, 319-11, Japan
SO International Journal of Quantum Chemistry (1996), 58(4), 407-18
CODEN: IJQCB2; ISSN: 0020-7608
PB Wiley
DT Journal
LA English
AB Second-order hyperpolarizabilities (.beta.) and gas-phase transition energies (E) of the para-disubstituted benzene, stilbene and azobenzene derivs. are calcd. by the semi-empirical SCF mol. orbit (SCF MO) method in the PPP approxn. using a sum-over-state's procedure with singly excited states. The calcd. zero-frequency .beta. (.beta.VEC0) values for all the derivs. are directly proportional to their 1/E2 values. The usefulness of mixing ethylenic and azo bridges in long .pi.-conjugated mols. is proposed to obtain large .beta. values, by taking the difference between the electronic natures of these bridges into account.
IT 39208-01-0 176518-80-2 176518-82-4
RL: PRP (Properties)
(quadratic hyperpolarizabilities of nitro-substituted pseudo-linear dye mols. with ethylenic and azo bridges)
RN 39208-01-0 CAPLUS
CN Benzenamine, N,N-dimethyl-4-[[4-[2-(4-nitrophenyl)ethenyl]phenyl]azo]-(9CI) (CA INDEX NAME)



RN 176518-80-2 CAPLUS
CN Benzenamine, N,N-dimethyl-4-[2-[4-[[4-[2-(4-nitrophenyl)ethenyl]phenyl]azo]phenyl]ethenyl]-(9CI) (CA INDEX NAME)

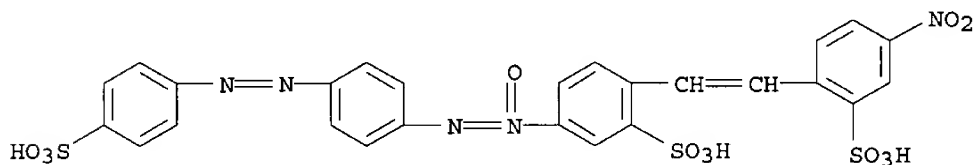


RN 176518-82-4 CAPLUS
CN Benzenamine, N,N-dimethyl-4-[[4-[[4-[2-(4-nitrophenyl)ethenyl]phenyl]azo]phenyl]azo]-(9CI) (CA INDEX NAME)



09567863

DN 125:303142
TI Azo **dye** sorption by chemisorptive polyamide fiber
AU Druzhinina, T. V.; Furman, N. N.; Larin, S. A.; Nazar'ina, L. A.; Zaikov, V. G.
CS Mosk. Gos. Tekstil. Akad., Moscow, Russia
SO Khimicheskie Volokna (1996), (3), 26-28
CODEN: KVLKA4; ISSN: 0023-1118
PB Khimicheskie Volokna
DT Journal
LA Russian
AB Chemisorption of azo dyes (Acid Blue 2K and Direct Lightfast Orange 2Zh) was studied using caprolactam-2-(dimethylamino)ethyl methacrylate graft copolymer fibers under static conditions at room temp. from solns. having pH=2-3 till reaching the equil. state. The effects of initial **dye** concn. and pH on the sorption process was evaluated. Activation energy of **dye** desorption in NaOH solns. (2-4 g/L) was 80 kJ/mol in the 40-60.degree. temp. range.
IT 39363-31-0, Direct Lightfast Orange 2Zh
RL: PEP (Physical, engineering or chemical process); PROC (Process) (azo **dye** sorption by chemisorptive polyamide fiber)
RN 39363-31-0 CAPLUS
CN Benzenesulfonic acid, 2-[2-(4-nitro-2-sulfohenyl)ethenyl]-5-[[4-[(4-sulfohenyl)azolphenyl]-NNO-azoxy]-, trisodium salt (9CI) (CA INDEX NAME)



● 3 Na

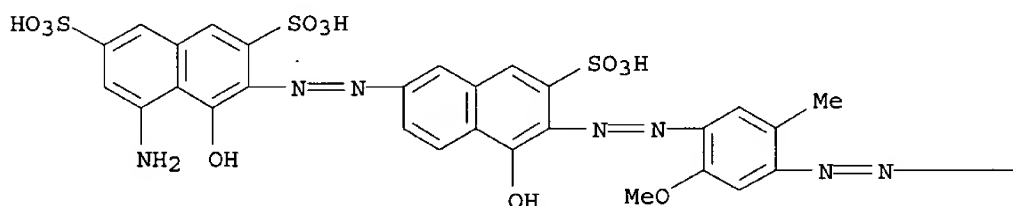
L22 ANSWER 20 OF 86 CAPLUS COPYRIGHT 2003 ACS
AN 1994:703050 CAPLUS
DN 121:303050
TI Water-soluble azo compounds and light-polarizing films containing the same
IN Imai, Rihoko; Misawa, Tsutayoshi; Ogiso, Akira; Ito, Naoto
PA Mitsui Toatsu Chemicals, Japan
SO Jpn. Kokai Tokkyo Koho, 21 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 06128498	A2	19940510	JP 1992-281640	19921020
	JP 3270536	B2	20020402		
PRAI	JP 1992-281640		19921020		
OS	MARPAT 121:303050				
GI					

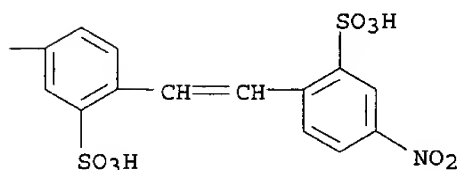
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

- AB The title compds. have the general formula I or II [including metal complex forms, R1 = H, OH, C1-2 alkyl, alkoxy; R2, R4 = H, halogen, OH, C1-2 alkyl, alkoxy, acylamino; R3 = Me, Et; R5 = hydroxy or amino bonded to the 1- or 2-position of the naphthalene ring; when R5 is bonded to the 1-position, the azo group is at the 2- or 4-position, and when R5 is bonded to the 2-position, the azo group is at the 1-position; R6 = H, carboxy, C1-2 alkyl, alkoxy; R7 = H, OH, amino, MeNH, HOCH2CH2NH, C1-2 alkylamino, (un)substituted phenylamino, (un)substituted benzoylamino; l, m, q = 0, 1; r = 0-2; D = diazonium residue; X = H, Na, K, Li; Y = H, halogen, OH, C1-2 alkyl, alkoxy, cyano, carboxy (salts), sulfo (salts), nitro, amino, C1-2 acylamino, BzNH, alkylamino, dialkylamino]. 4-Aminostilbene-2,2'-disulfonic acid, p-cresidine, J acid, and H acid were used in stepwise diazo coupling reactions to obtain II [2-bonding, Y = R6 = H; R3 = R4 = Me; R5 = 1-OH; R7 = 8-NH2; q = 1 (at the 3-position); r = 1 (at the 7-position); Na salt], forming bluish green poly(vinyl alc.) film with dichroic ratio (λ_{max} 635 nm, A.perp. 2.40) 37.3.
- IT 159106-19-1P 159106-31-7P 159106-35-1P
159162-02-4P 159162-06-8P 159162-09-1P
RL: PREP (Preparation)
(dye, dichroic, manuf. of, for light-polarizing films)
- RN 159106-19-1 CAPLUS
- CN 2,7-Naphthalenedisulfonic acid, 5-amino-4-hydroxy-3-[[5-hydroxy-6-[[2-methoxy-5-methyl-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]-7-sulfo-2-naphthalenyl]azo]- (9CI) (CA INDEX NAME)

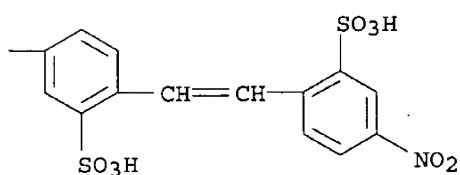
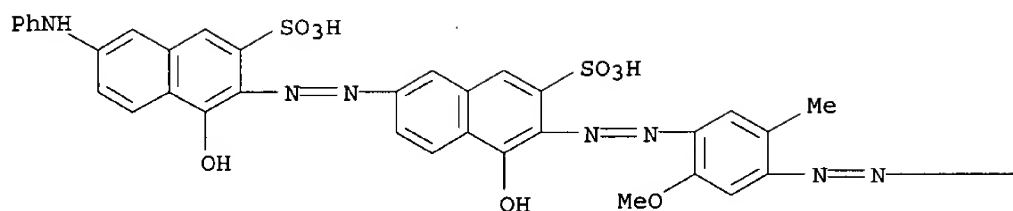
PAGE 1-A



PAGE 1-B

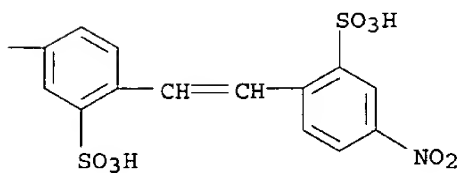
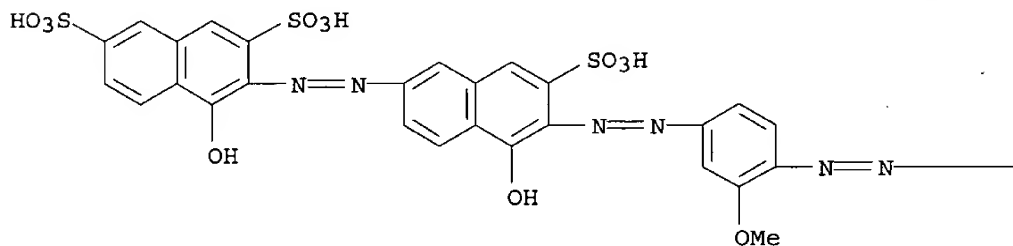


- RN 159106-31-7 CAPLUS
- CN 2-Naphthalenesulfonic acid, 4-hydroxy-3-[[5-hydroxy-6-[[2-methoxy-5-methyl-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]-7-sulfo-2-naphthalenyl]azo]-7-(phenylamino)- (9CI) (CA INDEX NAME)



RN 159106-35-1 CAPLUS

CN 2,7-Naphthalenedisulfonic acid, 4-hydroxy-3-[[5-hydroxy-6-[[3-methoxy-4-[[4-[2-(4-nitro-2-sulfo-2-naphthalenyl)azo]-3-sulfo-2-naphthalenyl]azo]phenyl]azo]-7-sulfo-2-naphthalenyl]azo]- (9CI) (CA INDEX NAME)



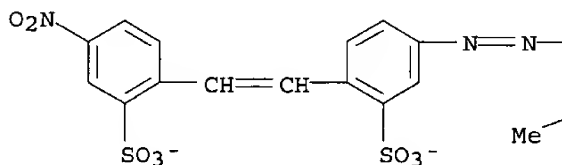
RN 159162-02-4 CAPLUS

CN Cuprate(5-), [5-amino-4-hydroxy-3-[[5-hydroxy-6-[[2-hydroxy-5-methyl-4-[[4-

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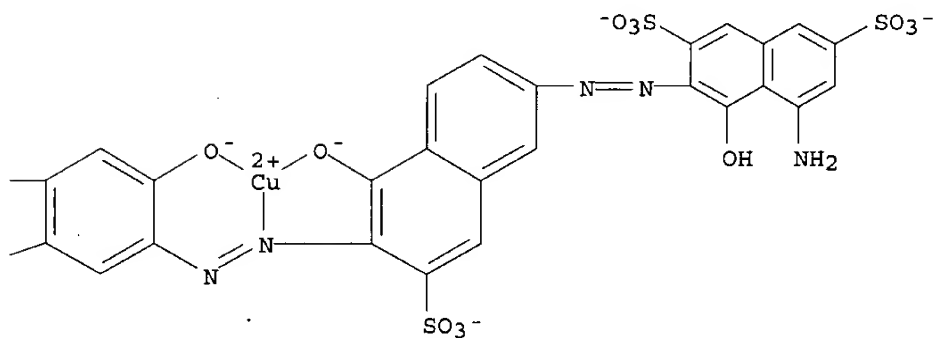
[2-(4-nitro-2-sulfo-phenyl)ethenyl]-3-sulfo-phenyl]azo]phenyl]azo]-7-sulfo-2-naphthalenyl]azo]-2,7-naphthalenedisulfonato(7-)]-, pentasodium (9CI) (CA INDEX NAME)

PAGE 1-A

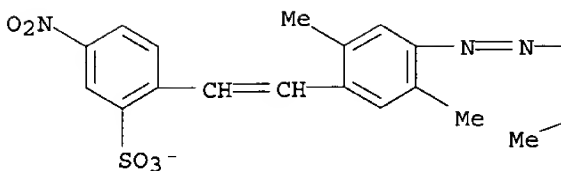
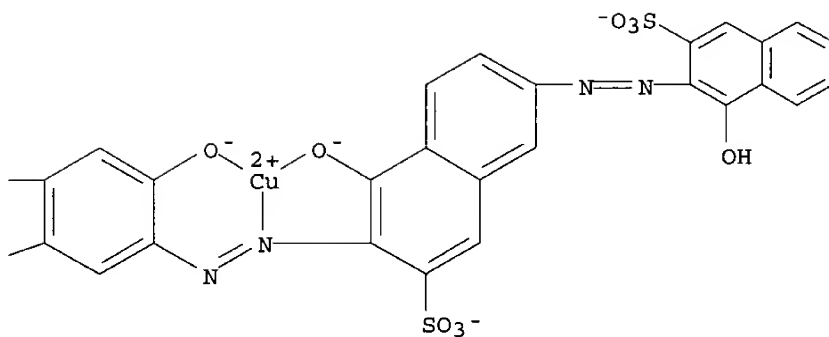


● 5 Na⁺

PAGE 1-B

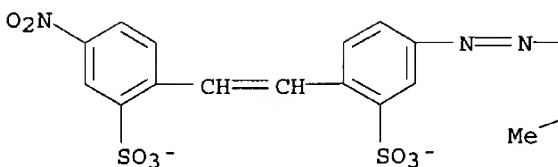
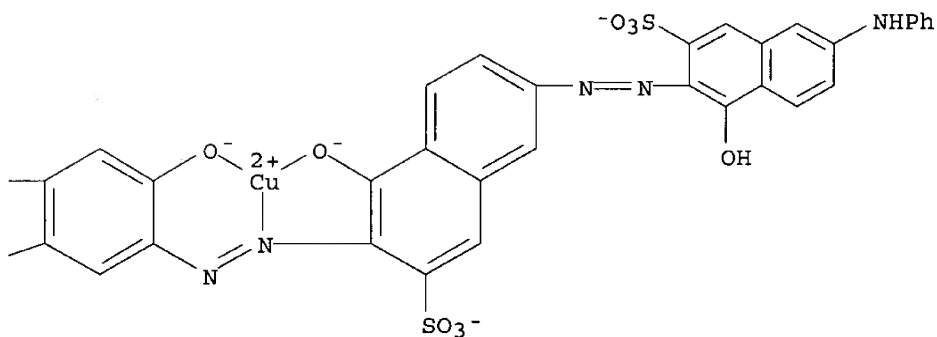


RN 159162-06-8 CAPLUS
 CN Cuprate(5-), [3-[[6-[[4-[[2,5-dimethyl-4-[2-(4-nitro-2-sulfo-phenyl)ethenyl]phenyl]azo]-2-hydroxy-5-methylphenyl]azo]-5-hydroxy-7-sulfo-2-naphthalenyl]azo]-4-hydroxy-1-naphthalenesulfonato(5-)]-, trisodium (9CI) (CA INDEX NAME)

● 3 Na⁺

RN 159162-09-1 CAPLUS

CN Cuprate(4-), [4-hydroxy-3-[[5-hydroxy-6-[[2-hydroxy-5-methyl-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-2-sulfophenyl]azo]phenyl]azo]-7-sulfo-2-naphthalenyl]azo]-7-(phenylamino)-2-naphthalenesulfonato(6-)]-, tetrasodium (9CI) (CA INDEX NAME)

● 4 Na⁺

L22 ANSWER 21 OF 86 CAPLUS COPYRIGHT 2003 ACS

AN 1994:511468 CAPLUS

DN 121:111468

TI Polarizing films and azo dyes therefor

IN Claussen, Uwe

PA Bayer A.-G., Germany

SO Ger. Offen., 6 pp.

CODEN: GWXXBX

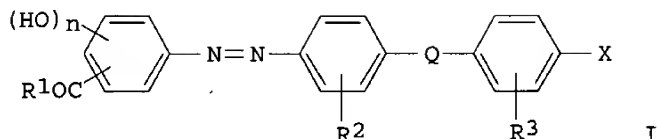
DT Patent

LA German

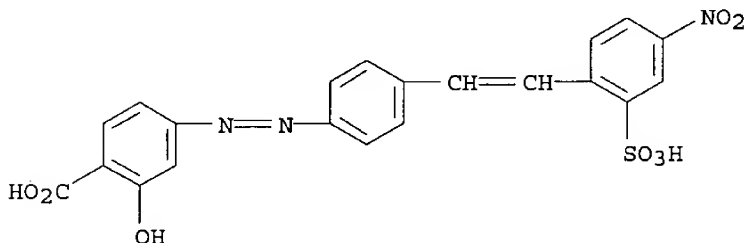
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 4227521	A1	19940224	DE 1992-4227521	19920820
PRAI	DE 1992-4227521		19920820		
OS	MARPAT 121:111468				
GI					

09567863

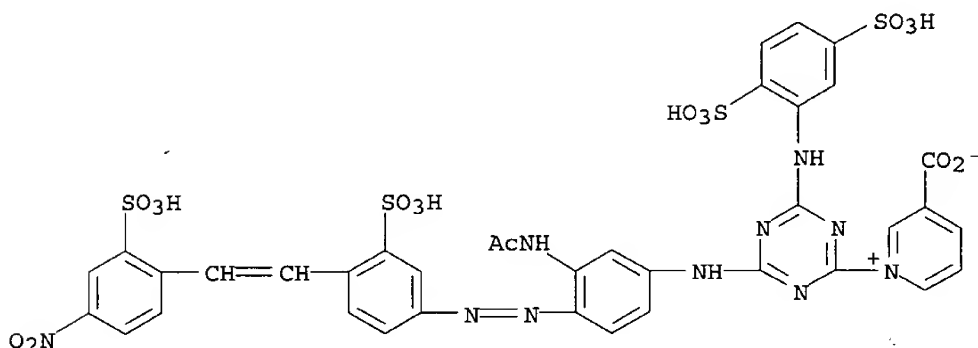


- AB The films contain 0.01-10% I [Q = direct bond, N:N, N:CH, CH:N, CH:CH; R1 = amino, HO, Cl-4-alkoxy, PhO; R2, R3 = H, SO3H, Me, halogen, amino, OH, Cl-4-alkoxy (R2 or R3 = SO3H); X = azo, amino, substituted vinyl, halogen, OH, NO2, carboxylic acid deriv., alkoxy; n = 1, 2]. in a poly(vinyl alc.) matrix. 4-Amino-4'-acetamido-2-stilbenesulfonic acid .fwdarw. benzoyl I acid was prepd. and mixed (1:99) with Mowiol 28-99 to give a film with dichroic ratio (after 500% stretching at 130.degree.) 42.6 at 550 nm.
- IT **156625-72-8P**
RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. of dichroic, for polarizing films)
- RN 156625-72-8 CAPLUS
- CN Benzoic acid, 2-hydroxy-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]phenyl]azo]- (9CI) (CA INDEX NAME)



- L22 ANSWER 22 OF 86 CAPLUS COPYRIGHT 2003 ACS
- AN 1995:250109 CAPLUS
- DN 122:58047
- TI The dyeing of Tencel. Part 1: Reactive dyes
- AU Burkinshaw, S. M.; Willmott, N. J.
- CS Department of Colour Chemistry and Dyeing, The University, Leeds, LS2 9JT, UK
- SO Dyes and Pigments (1994), 26(2), 129-38
CODEN: DYPIDX; ISSN: 0143-7208
- PB Elsevier
- DT Journal
- LA English
- AB Three examples of three types of reactive dye were applied to cotton, regular viscose and Tencel at 2% o.m.f. The colorimetric parameters of all the dyes on the 3 types of fiber reflected those of the undyed substrates and, in general, there are relatively little difference in color between the dyeings on the 3 fiber types. The color strength of the dyeings was lowest on cotton, with the dyeings on Tencel being of slightly lower color strength than those on viscose. From the results, it appears that Tencel exhibits similar dyeability to regular viscose with reactive dyes.
- IT **160170-74-1**, C.I. Reactive Yellow 178
RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses)
(color strength and dyeability comparison for cotton, regular viscose, and Tencel with reactive dyes)
- RN 160170-74-1 CAPLUS
- CN Pyridinium, 1-[4-[[3-(acetylamino)-4-[[4-[2-(4-nitro-2-

sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]amino]-6-[(2,5-disulfophenyl)amino]-1,3,5-triazin-2-yl]-3-carboxy-, inner salt, tetrasodium salt (9CI) (CA INDEX NAME)



● 4 Na

L22 ANSWER 23 OF 86 CAPLUS COPYRIGHT 2003 ACS

AN 1994:79417 CAPLUS

DN 120:79417

TI Synthesis of arylazostilbenes and -tolans by the Heck reaction

AU Jeoung, Cheung Bok; Haak, Oliver; Grahn, Walter; Boldt, Peter

CS Inst. Org. Chem., Techn. Univ., Braunschweig, Germany

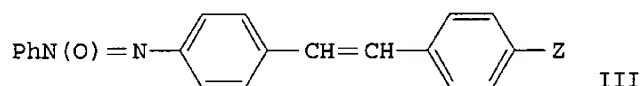
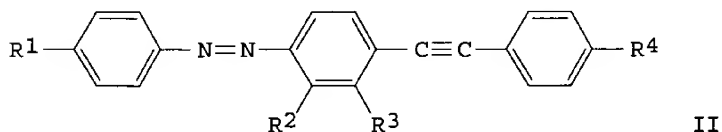
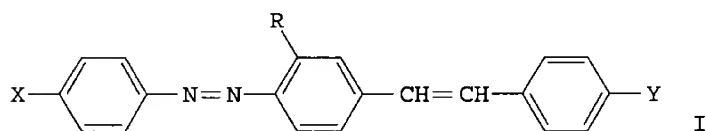
SO Journal fuer Praktische Chemie/Chemiker-Zeitung (1993), 335(6), 521-31

CODEN: JPCCEM; ISSN: 0941-1216

DT Journal

LA German

GI



AB The Pd-catalyzed coupling of p-bromo azo dyes with styrenes and arylacetylenes provides arylazostilbenes (I; R = H, OH; X = H, HO, EtO; Y = H, CN, OMe, NO₂) and -tolans (II; R₁ = H, Me₂N, BuO, O₂N, NC, 4-pivaloylpiperazino; R₂ = H, OH, tosyloxy; R₃ = H, tosyloxy; R₄ = H, CN, NMe₂, NO₂), resp., in fair-to-good yields. Likewise, coupling of p-bromoazoxybenzene with styrenes forms the arylazoxystilbenes III (Z = H,

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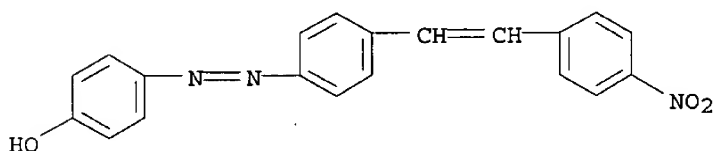
NO₂, CN, OMe) in high yields. The influence of substituents on light absorption of the new dyes as well as on the ¹³C-NMR shifts of II are discussed.

IT 152065-91-3P 152065-92-4P 152065-93-5P
152065-95-7P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and spectral properties of)

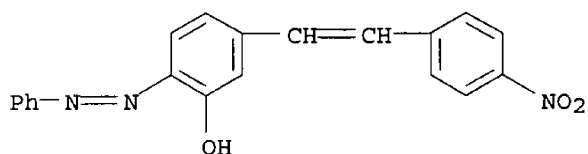
RN 152065-91-3 CAPLUS

CN Phenol, 4-[[4-[2-(4-nitrophenyl)ethenyl]phenyl]azo]- (9CI) (CA INDEX NAME)



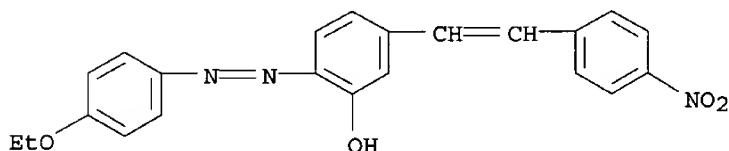
RN 152065-92-4 CAPLUS

CN Phenol, 5-[2-(4-nitrophenyl)ethenyl]-2-(phenylazo)- (9CI) (CA INDEX NAME)



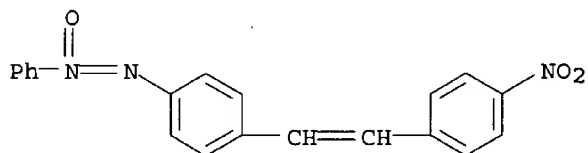
RN 152065-93-5 CAPLUS

CN Phenol, 2-[(4-ethoxyphenyl)azo]-5-[2-(4-nitrophenyl)ethenyl]- (9CI) (CA INDEX NAME)



RN 152065-95-7 CAPLUS

CN Diazene, [4-[2-(4-nitrophenyl)ethenyl]phenyl]phenyl-, 2-oxide (9CI) (CA INDEX NAME)



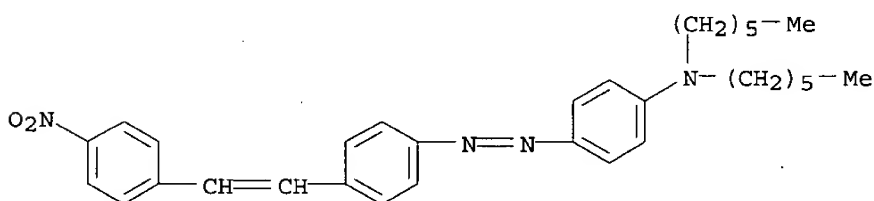
L22 ANSWER 24 OF 86 CAPLUS COPYRIGHT 2003 ACS

AN 1994:91373 CAPLUS

DN 120:91373

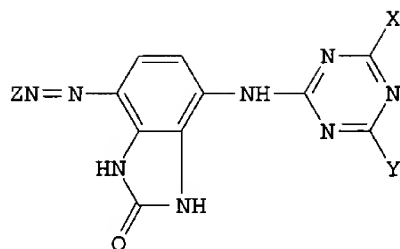
09567863

TI Orientational behavior of stilbene dyes in nematic liquid crystals
 AU Hanemann, T.; Haase, W.
 CS Inst. Phys. Chem., Tech. Hochsch. Darmstadt, Darmstadt, D-6100, Germany
 SO Molecular Crystals and Liquid Crystals Science and Technology, Section A:
 Molecular Crystals and Liquid Crystals (1993), 231, 119-27
 CODEN: MCLCE9; ISSN: 1058-725X
 DT Journal
 LA English
 AB Four different guest-host systems contg. stilbene mols. solved in the liq.
 cryst. compd. CB5 were studied to study the orientational behavior of
 these dyes in the nematic phase. The estn. of the optical order parameter
 Sop was done using UV/visible dichroism measurements. The **dye's**
 structure and concn. influence the nematic phase order and the phase
 range. This will be demonstrated in concn. dependent measurements of the
 optical order parameter and the change of the clearing point with the amt.
 of solved **dye** mols. Besides the common decrease of the optical
 order parameter with increasing **dye** concn. the opposite
 behavior, i.e., a slight increase of Sop was obsd. also.
 IT **152461-82-0**
 RL: PROC (Process)
 (orientational behavior of, in 5CB nematic liq. crystals)
 RN 152461-82-0 CAPLUS
 CN Benzenamine, N,N-dihexyl-4-[[4-[2-(4-nitrophenyl)ethenyl]phenyl]azo]-
 (9CI) (CA INDEX NAME)



L22 ANSWER 25 OF 86 CAPLUS COPYRIGHT 2003 ACS
 AN 1992:593599 CAPLUS
 DN 117:193599
 TI Water-soluble reactive azo dyes, their preparation and use
 IN Reiher, Uwe
 PA Hoechst A.-G., Germany
 SO Ger. Offen., 12 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 4042290	A1	19920702	DE 1990-4042290	19901231
	EP 493759	A1	19920708	EP 1991-121926	19911220
	R: CH, DE, ES, FR, GB, IT, LI				
	JP 04359067	A2	19921211	JP 1991-346839	19911227
	US 5200512	A	19930406	US 1991-816299	19911227
PRAI	DE 1990-4042290		19901231		
OS	MARPAT 117:193599				
GI					



I

AB The title golden yellow dyes (I; X = F, Cl, reactive amino group; Y = F, Cl, group contg. O or NH; Y = Ph or naphthyl ring contg. water-solubilizing group) are obtained for use on cellulose. Thus, 2-amino-4,8-naphthalenedisulfonic acid was diazotized and coupled with 4-amino-2-benzimidazolone, and the product was treated with cyanuric chloride, followed by cyanamide and 3-(2-sulfatoethylsulfonyl)aniline to provide I [X = NHCN; Y = 3-(2-sulfatoethylsulfonyl)anilino; Z = 4,8-disulfo-2-naphthyl], fast yellow on cotton.

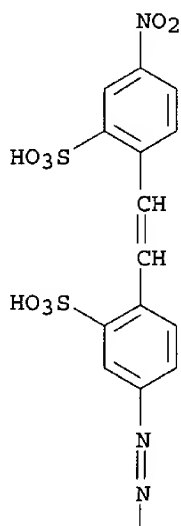
IT 143805-02-1P 143805-03-2P

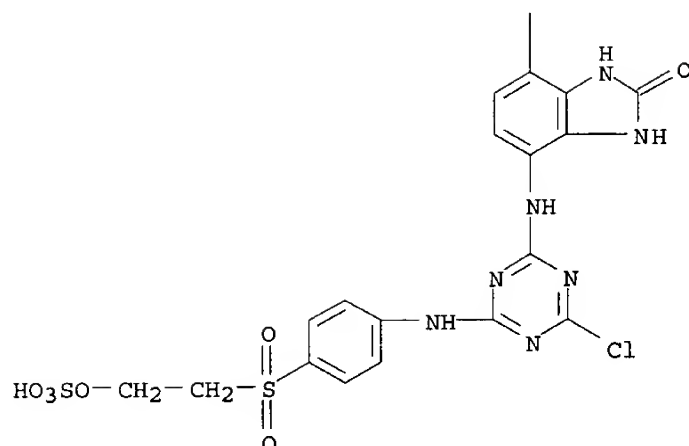
RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. of, as reactive **dye** for cellulose)

RN 143805-02-1 CAPLUS

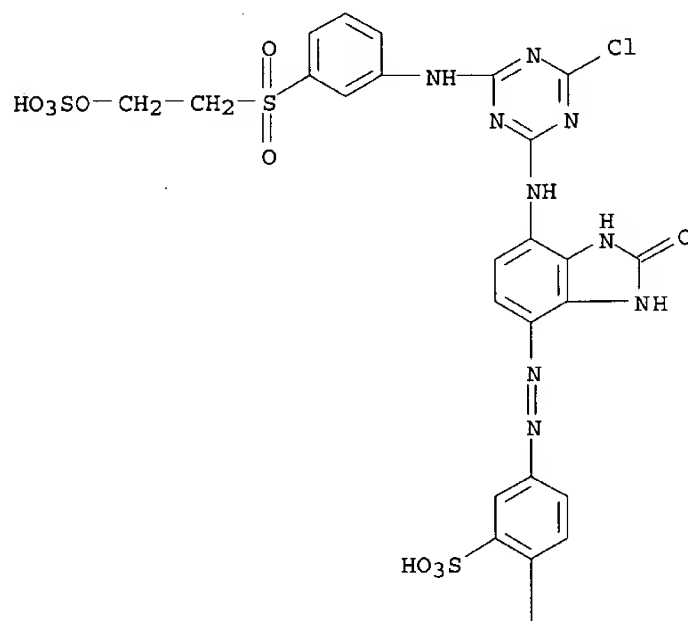
CN Benzenesulfonic acid, 5-[[7-[[4-chloro-6-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-2,3-dihydro-2-oxo-1H-benzimidazol-4-yl]azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]- (9CI) (CA INDEX NAME)

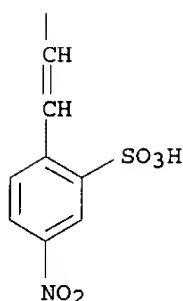
PAGE 1-A





RN 143805-03-2 CAPLUS
 CN Benzenesulfonic acid, 5-[[7-[[4-chloro-6-[[3-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-2,3-dihydro-2-oxo-1H-benzimidazol-4-yl]azo]-2-[2-(4-nitro-2-sulphophenyl)ethenyl]- (9CI) (CA INDEX NAME)





L22 ANSWER 26 OF 86 CAPLUS COPYRIGHT 2003 ACS
 AN 1993:497852 CAPLUS
 DN 119:97852
 TI Solvent dyeing of silk with reactive triazinyl dyes from aqueous alcoholic dyebath
 AU Bae, Sook Hee; Komaki, Motoko; Nakajima, Toshinari
 CS Fac. Home Econ., Ochanomizu Univ., Tokyo, 112, Japan
 SO Sen'i Gakkaishi (1992), 48(12), 704-10
 CODEN: SENGAS; ISSN: 0037-9875
 DT Journal
 LA Japanese
 AB Solvent dyeing of silk with 3-carboxypyridinio-triazinyl (MNT), monochlorotriazinyl (MCT), and vinylsulfonyl (VS) reactive dyes from aq. alc. dyebath was investigated. MNT and MCT stilbene monoazo yellow dyes, MNT and MCT disazo red dyes (C. I. Reactive Red 120), Red 3, Blue 5, and Blue 19 were used. With an increase in the content of alc. in the neutral salt dyebath, the amts. of adsorption of these dyes decreased to the min. value, and increased to the max. value at the satd. concn. of the dyebath, and then decreased again. The min. was attained at 40-50 (vol.)% and the max. about 80-90%. The alc. concn. of max. dyeing varied with dyes and was inversely proportional to the no. of sulfonic acid groups of dyes. From the aq. dyebath with neutral salt the adsorption of triazinyl dyes was Langmuir-type, while from the 90% alc. dyebath it was Nernst-type. With an increase in the content of alc. in the aq. dyebath, the contribution of Langmuir-type to the adsorption was decreased, while that of Nernst-type was increased. Silk fabrics can be dyed from the aq. alc. dyebath. Although there remains some problems to be solved from the practical point of view, 80-90 (vol.)% ethanol soln. brought about the most effective dye fixation.
 IT 115099-55-3
 RL: USES (Uses)
 (dyeing by, of silk from aq. alc. dyebath)
 RN 115099-55-3 CAPLUS

L22 ANSWER 27 OF 86 CAPLUS COPYRIGHT 2003 ACS
 AN 1991:481520 CAPLUS
 DN 115:81520
 TI Quadratic electrooptic effect in small molecules
 AU Dirk, C. W.; Kuzyk, M. G.
 CS AT and T Bell Lab., Murray Hill, NJ, 07974, USA
 SO ACS Symposium Series (1991), 455(Mater. Nonlinear Opt.), 687-703
 CODEN: ACSMC8; ISSN: 0097-6156
 DT Journal
 LA English
 AB An attempt was made to fit quadratic electrooptic (QEO) results to a two-level model for the microscopic third order susceptibility, γ .

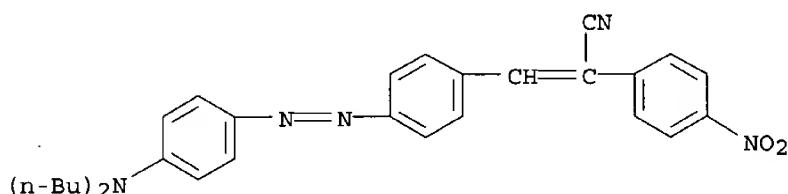
The results are to some extent inconclusive and suggest that a two-photon state may have to be included. Also reported here are some further improvements in mol. second order nonlinearities and particular importance to poled-polymer electrooptic applications (EO). Thus, it is found that appropriate replacement of benzene moieties with that of thiazole in certain azo dyes results in a factor of three increase in $\mu \cdot \text{cntdot} \cdot \beta$, the mol. dipole (μ) projected mol. second order nonlinear optical susceptibility, β .

IT 126910-32-5

RL: PRP (Properties)

(quadratic electrooptical susceptibility of)

RN 126910-32-5 CAPLUS

CN Benzeneacetonitrile, α -[[4-[[4-(dibutylamino)phenyl]azo]phenyl]methylene]-4-nitro- (9CI) (CA INDEX NAME)

L22 ANSWER 28 OF 86 CAPLUS COPYRIGHT 2003 ACS

AN 1991:537167 CAPLUS

DN 115:137167

TI Nonlinear optics in poled polymers with two dimensional asymmetry

AU Berkovic, Garry; Krongauz, Valeri; Yitzchaik, Shlomo

CS Dep. Struct. Chem., Weizmann Inst. Sci., Rehovot, 76100, Israel

SO Proceedings of SPIE-The International Society for Optical Engineering (1991), 1442 (Meet. Isr. Opt. Eng., 7th, 1990), 44-52

CODEN: PSISDG; ISSN: 0277-786X

DT Journal

LA English

AB When thin films of side-chain liq.-cryst. copolymers based on monomers contg. mesogenic groups or 4-dimethylamino-4'-nitrostilbene and Disperse Red dye hyperpolarizable species were poled by an elec. field in the plane of the film, they exhibited optical nonlinearity both parallel and perpendicular to the direction of the poling field.

IT 136071-55-1

RL: PRP (Properties)

(liq.-cryst., optical nonlinear and phys. properties of hyperpolarizable, poled by elec. field)

RN 136071-55-1 CAPLUS

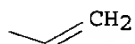
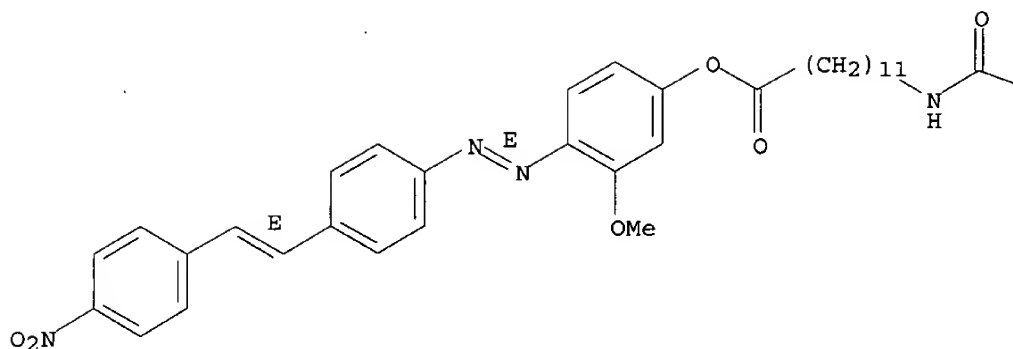
CN Dodecanoic acid, 12-[(1-oxo-2-propenyl)amino]-, 3-methoxy-4-[[4-[2-(4-nitrophenyl)ethenyl]phenyl]azo]phenyl ester, (E,E)-, polymer with 4-cyanophenyl 4-[[6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]benzoate and 4-methoxyphenyl 4-[[6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]benzoate (9CI) (CA INDEX NAME)

CM 1

CRN 136071-54-0

CMF C36 H42 N4 O6

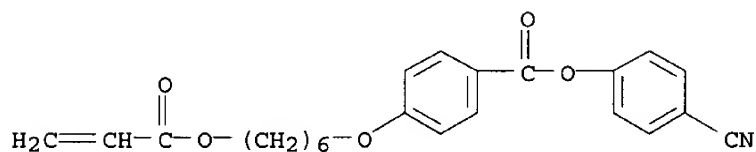
Double bond geometry as shown.



CM 2

CRN 83847-14-7

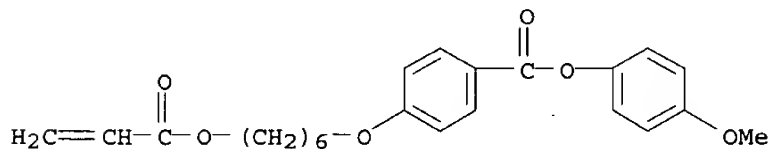
CMF C23 H23 N O5



CM 3

CRN 82200-53-1

CMF C23 H26 O6



L22 ANSWER 29 OF 86 CAPLUS COPYRIGHT 2003 ACS

AN 1992:513413 CAPLUS

DN 117:113413

TI Changes in the color of textile articles using high-modulus rayon fibers subjected to wet treatments

AU Ivannikova, L. I.; Androsova, V. F.

CS Leningr. Inst. Sov. Torg., Leningrad, USSR

09567863

SO Izvestiya Vysshikh Uchebnykh Zavedenii, Tekhnologiya Legkoi Promyshlennosti (1991), 34(1), 18-21
CODEN: IVULAU; ISSN: 0021-3489

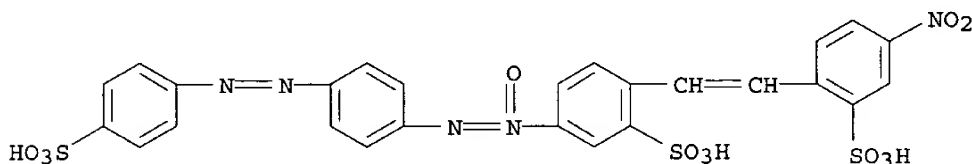
DT Journal
LA Russian

AB The changes of color of cotton-rayon blend knitted sportswear and underwear dyed with 25 various reactive and direct dyes were studied under laundering in soft and rigid conditions. All the coloristic characteristics were affected by laundering. Direct dyes showed low fastness under laundering. The best results were obtained for the textiles dyed with reactive dyes, Reactive Yellow 2KT, Reactive Fast Yellow 2KT, Reactive Brilliant Yellow 5ZKh, and Reactive Scarlet 4ZhT.

IT 39363-31-0, Direct Fast Orange 2Zh
RL: USES (Uses)
(fastness of, during laundering of rayon-cotton knitted sports- and underwear)

RN 39363-31-0 CAPLUS

CN Benzenesulfonic acid, 2-[2-(4-nitro-2-sulfophenyl)ethenyl]-5-[[4-[(4-sulfophenyl)azo]phenyl]-NNO-azoxy]-, trisodium salt (9CI) (CA INDEX NAME)



● 3 Na

L22 ANSWER 30 OF 86 CAPLUS COPYRIGHT 2003 ACS

AN 1991:83482 CAPLUS

DN 114:83482

TI Light-polarizing films or sheets containing stilbene dyes

IN Claussen, Uwe; Kroeck, Friedrich

PA Bayer A.-G., Germany

SO Eur. Pat. Appl., 32 pp.
CODEN: EPXXDW

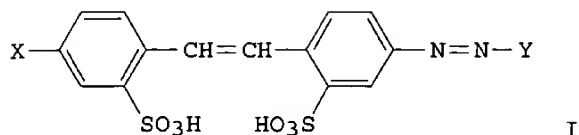
DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 374655	A1	19900627	EP 1989-122773	19891209
	EP 374655	B1	19930915		
	R: BE, CH, DE, FR, GB, IT, LI, NL, SE				
	DE 3921669	A1	19900705	DE 1989-3921669	19890701
	US 5007942	A	19910416	US 1989-450757	19891214
	CA 2006427	AA	19900623	CA 1989-2006427	19891221
	JP 02269136	A2	19901102	JP 1989-334630	19891223
PRAI	DE 1988-3843417		19881223		
	DE 1989-3921669		19890701		
OS	MARPAT 114:83482				
GI					

09567863



AB The title films, with excellent dichroic properties, contain the stilbene dyes I (X = CN, CF₃, halogen, amino, amido, CO₂H, carbamyl, carboalkoxy, OH, alkoxy, acyloxy, -N:NY₁; Y, Y₁ = arom. or heterocyclic group, optionally substituted). An azo dye (II) was prepd. from 0.1 mol diazotized 4,4'-diaminostilbene-2,2'-disulfonic acid and 0.2 mol N-benzoyl J acid. A soln. of 9.9 g poly(vinyl alc.), 0.1 g II, and 190 g H₂O was mixed (9.25 g) with 2.5 g glycerol and 5 g MeOH, coated (500 .mu.m) on glass, dried in air, and drawn .apprx.700% at 130.degree. and .apprx.10 cm/min to give a film with dichroic ratio (557 nm) .apprx.28.

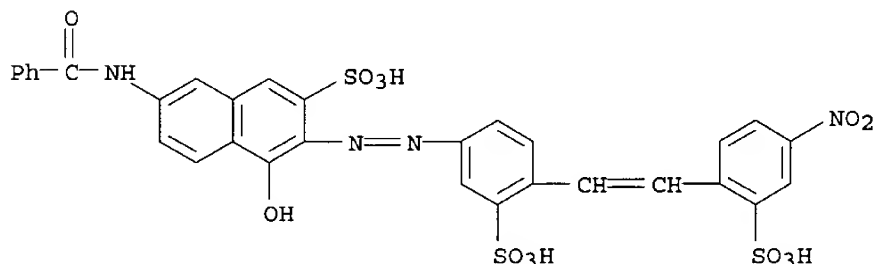
IT 131511-82-5

RL: USES (Uses)

(dichroic dyes, for use in polarizing films, manuf. of)

RN 131511-82-5 CAPLUS

CN 2-Naphthalenesulfonic acid, 7-(benzoylamino)-4-hydroxy-3-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]- (9CI) (CA INDEX NAME)



L22 ANSWER 31 OF 86 CAPLUS COPYRIGHT 2003 ACS

AN 1991:25812 CAPLUS

DN 114:25812

TI Azostilbene dyes for films and filters

IN Claussen, Uwe; Kroecke, Friedrich W.

PA Bayer A.-G., Germany

SO Ger. Offen., 27 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3921678	A1	19900705	DE 1989-3921678	19890701
	EP 376032	A2	19900704	EP 1989-122778	19891209
	EP 376032	A3	19910227		
	EP 376032	B1	19941123		
	R: CH, DE, FR, GB, IT, LI, NL, SE				
	CA 2006414	AA	19900623	CA 1989-2006414	19891221
	JP 02222459	A2	19900905	JP 1989-334629	19891223
	US 5272259	A	19931221	US 1992-890332	19920526
PRAI	DE 1988-3843414		19881223		
	DE 1989-3921678		19890701		
	US 1989-449036		19891211		

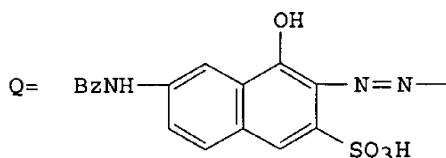
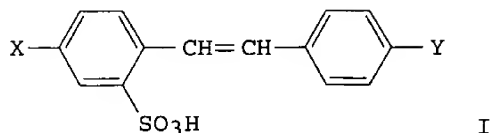
09567863

US 1990-594535

19901009

OS MARPAT 114:25812

GI



AB The title dyes I [X, Y = N:NR, CF₃, (un)substituted CONH₂, CO₂H, carboxylate ester, CN, NO₂, (un)substituted NH₂, OH, alkoxy, aryloxy, carbonamido, acyl; R = aryl, heterocyclic residue; X and/or Y must be N:NR], useful in the manuf. of light polarizing films, dichroic filters, etc., are prepd. Thus, 4,4'-diamino-2-stilbenesulfonic acid was tetrazotized and coupled with 6-(benzoylamino)-1-hydroxy-3-naphthalenesulfonic acid, producing I (X, Y = Q) which, when incorporated into a partially sapon. poly(vinyl acetate) film (sapon. degree 99.4 +/- 0.4 mol%), had .lambda.max 570 nm with polarized light and dichroic ratio .apprx.43.

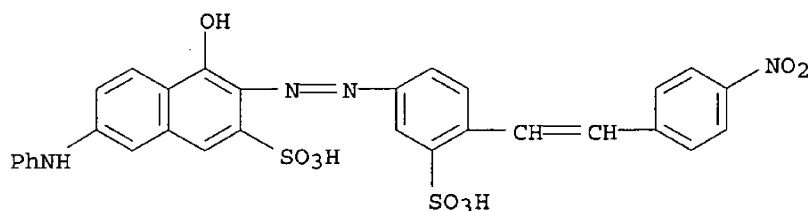
IT 131032-86-5P 131055-98-6P

RL: PREP (Preparation)

(manuf. of, as dye for polarizing and dichroic filters)

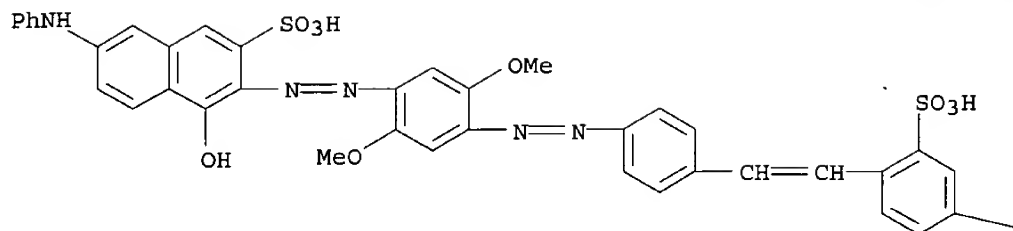
RN 131032-86-5 CAPLUS

CN 2-Naphthalenesulfonic acid, 4-hydroxy-3-[[4-[2-(4-nitrophenyl)ethenyl]-3-sulfophenyl]azo]-7-(phenylamino)- (9CI) (CA INDEX NAME)



RN 131055-98-6 CAPLUS

CN 2-Naphthalenesulfonic acid, 3-[[2,5-dimethoxy-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]phenyl]azo]phenyl]azo]-4-hydroxy-7-(phenylamino)- (9CI) (CA INDEX NAME)

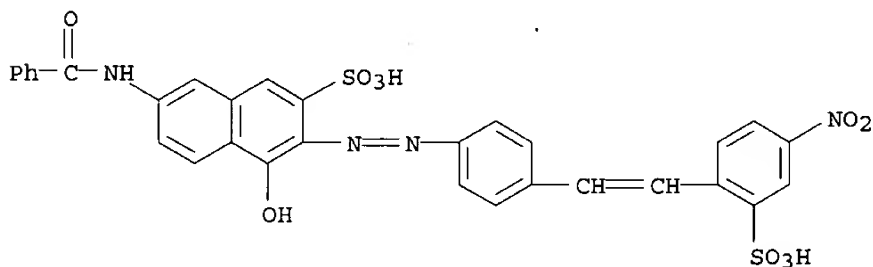
—NO₂

IT 131032-82-1P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and redn. of)

RN 131032-82-1 CAPLUS

CN 2-Naphthalenesulfonic acid, 7-(benzoylamino)-4-hydroxy-3-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]phenyl]azo]- (9CI) (CA INDEX NAME)

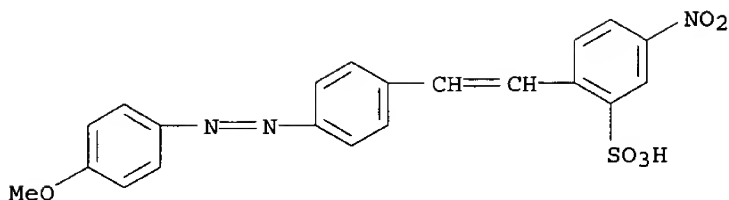


IT 131032-83-2P

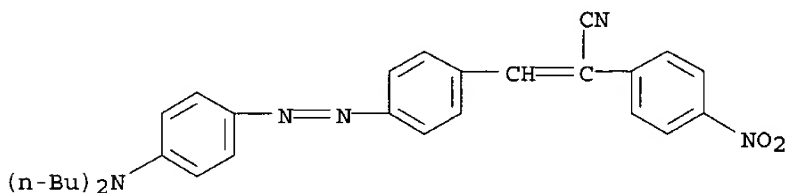
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and redn. of, in dye manuf.)

RN 131032-83-2 CAPLUS

CN Benzenesulfonic acid, 2-[2-[4-[(4-methoxyphenyl)azo]phenyl]ethenyl]-5-nitro- (9CI) (CA INDEX NAME)

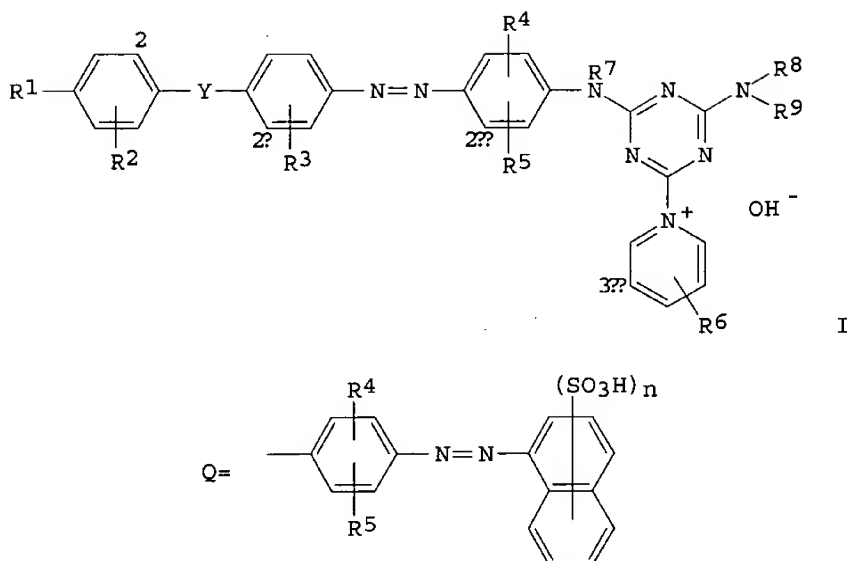


L22 ANSWER 32 OF 86 CAPLUS COPYRIGHT 2003 ACS
 AN 1990:207231 CAPLUS
 DN 112:207231
 TI Third order nonlinear optical molecules and the two-level model
 AU Dirk, C. W.; Kuzyk, M. G.
 CS AT and T Bell Lab., Murray Hill, NJ, 07974, USA
 SO Proceedings of SPIE-The International Society for Optical Engineering
 (1990), Volume Date 1989, 1147 (Nonlinear Opt. Prop. Org. Mater. 2), 18-25
 CODEN: PSISDG; ISSN: 0277-786X
 DT Journal
 LA English
 AB A quadratic electrooptic (QEO) measuring method was developed and used to
 measure polymer thin film solns. of **dye** compds. The mol.
 |Re[hivin..gamma.]], the real part of the microscopic electronic
 3rd-order nonlinear susceptibility, is reported for several previously
 unmeasured mols. Data anal. is attempted using a 2-level model.
 IT **126910-32-5**
 RL: PRP (Properties)
 (nonlinear susceptibility of, third-order, two-level model in anal. of)
 RN 126910-32-5 CAPLUS
 CN Benzeneacetonitrile, .alpha.-[[4-[[4-(dibutylamino)phenyl]azo]phenyl]methy
 lene]-4-nitro- (9CI) (CA INDEX NAME)



L22 ANSWER 33 OF 86 CAPLUS COPYRIGHT 2003 ACS
 AN 1990:181383 CAPLUS
 DN 112:181383
 TI Reddish yellow reactive dyes and dyeing cellulosic fibers therewith
 IN Matsunaga, Ryozo; Ogawa, Eiichi
 PA Nippon Kayaku Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 10 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 01308460	A2	19891213	JP 1988-138286	19880607
	JP 2540598	B2	19961002		
PRAI	JP 1988-138286		19880607		
OS	MARPAT 112:181383				
GI					

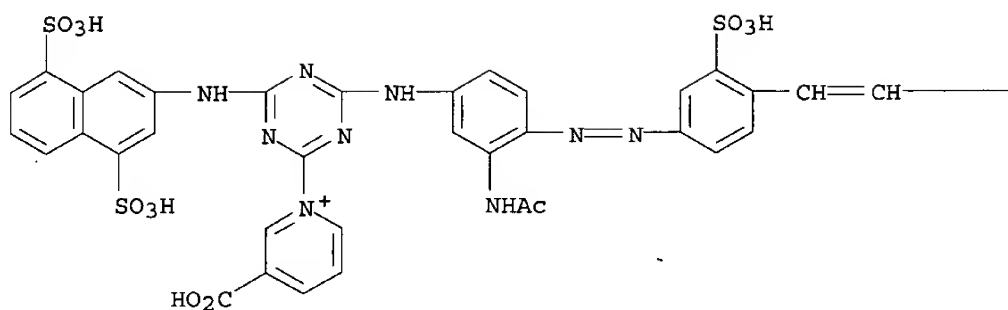
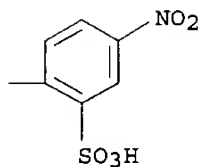


AB The title dyes providing high color yields and suitable for 1-bath dyeing of polyester-cotton blends have the general formula of free-acid from I (R1, R2 = H, SO3H, NO2; R3 = H, SO3H; R4, R5 = H, OMe, OEt, Me, NHAc, NHCONH2, NH2; R6 = CO2H, CONH2; R7, R8 = H, Me, Et; R9 = mono- or disulfophenyl, mono-, di-, or trisulfonaphthyl, Q; Y = CH:CH, NH, CONH; n = 2-3). 4-Amino-4'-nitrostilbene-2,2'-disulfonic acid was diazotized and coupled with m-H2NC6H4NHAc, and the coupling product was condensed with 1:1 condensate of cyanuric chloride and 2-amino-4,8-naphthalenedisulfonic acid then with nicotinic acid, and salted to give I (R1 = NO2; R2 = 2-SO3H; R3 = 2'-SO3H; R4 = R7 = R8 = H; R5 = 2''-NHAc; R6 = 3'''-CO2H; R9 = 4,8-disulfo-2-naphthyl).

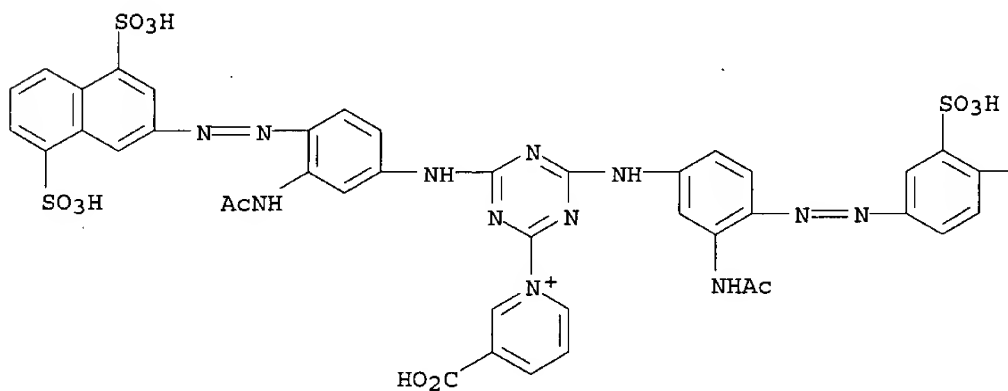
IT 126654-43-1 126654-44-2 126654-45-3
 126654-46-4 126654-47-5 126654-48-6
 126671-24-7 126671-25-8 126671-26-9
 126671-27-0 126671-28-1 126671-29-2
 126671-30-5 126671-31-6 126671-35-0
 126671-36-1 126671-37-2 126671-38-3
 126671-39-4 126671-40-7

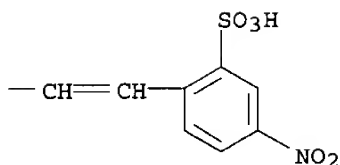
RL: TEM (Technical or engineered material use); USES (Uses)
 (dye, for cellulosic fibers, manuf. of)

RN 126654-43-1 CAPLUS
 CN Pyridinium, 1-[4-[[3-(acetylamino)-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]amino]-6-[(4,8-disulfo-2-naphthalenyl)amino]-1,3,5-triazin-2-yl]-3-carboxy-, hydroxide (9CI) (CA INDEX NAME)

● OH⁻

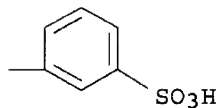
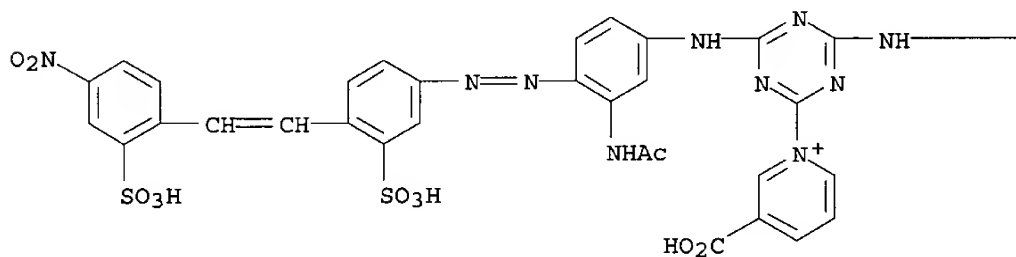
RN 126654-44-2 CAPLUS
 CN Pyridinium, 1-[4-[[3-(acetylamino)-4-[(4,8-disulfo-2-naphthalenyl)azo]phenyl]amino]-6-[[3-(acetylamino)-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]amino]-1,3,5-triazin-2-yl]-3-carboxy-, hydroxide (9CI) (CA INDEX NAME)

● OH⁻



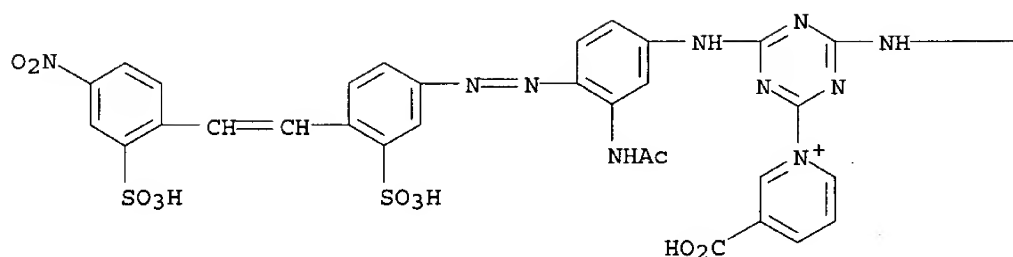
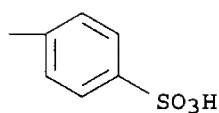
RN 126654-45-3 CAPLUS

CN Pyridinium, 1-[4-[[3-(acetylamino)-4-[[4-[2-(4-nitro-2-sulfo-phenyl)ethenyl]-3-sulfo-phenyl]azo]phenyl]amino]-6-[(3-sulfo-phenyl)amino]-1,3,5-triazin-2-yl]-3-carboxy-, hydroxide (9CI) (CA INDEX NAME)

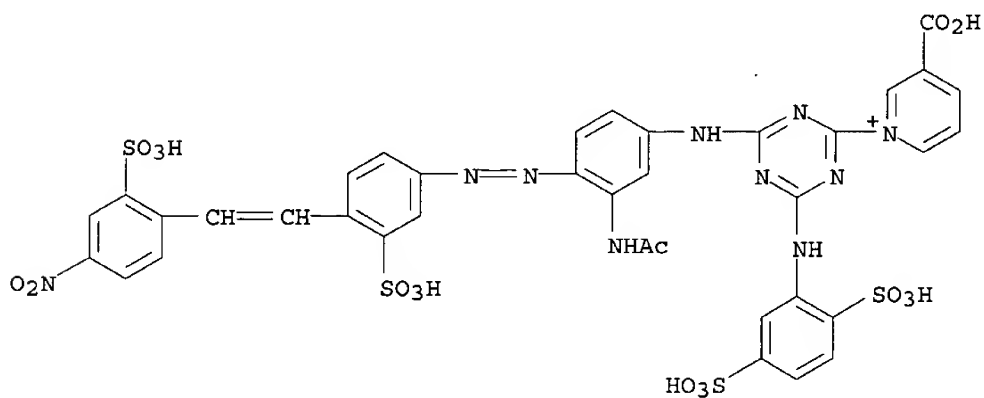


RN 126654-46-4 CAPLUS

CN Pyridinium, 1-[4-[[3-(acetylamino)-4-[[4-[2-(4-nitro-2-sulfo-phenyl)ethenyl]-3-sulfo-phenyl]azo]phenyl]amino]-6-[(4-sulfo-phenyl)amino]-1,3,5-triazin-2-yl]-3-carboxy-, hydroxide (9CI) (CA INDEX NAME)

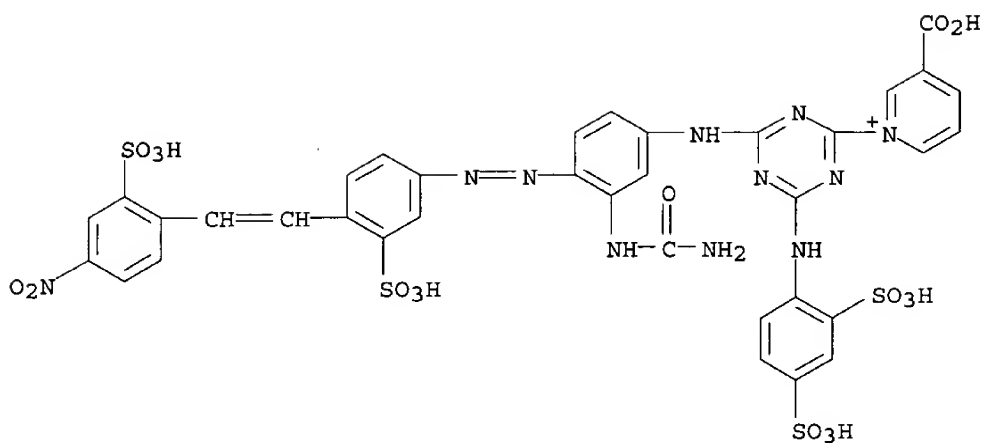
● OH⁻

RN 126654-47-5 CAPLUS
 CN Pyridinium, 1-[4-[[3-(acetylamino)-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]amino]-6-[(2,4-disulfophenyl)amino]-1,3,5-triazin-2-yl]-3-carboxy-, hydroxide (9CI) (CA INDEX NAME)

● OH⁻

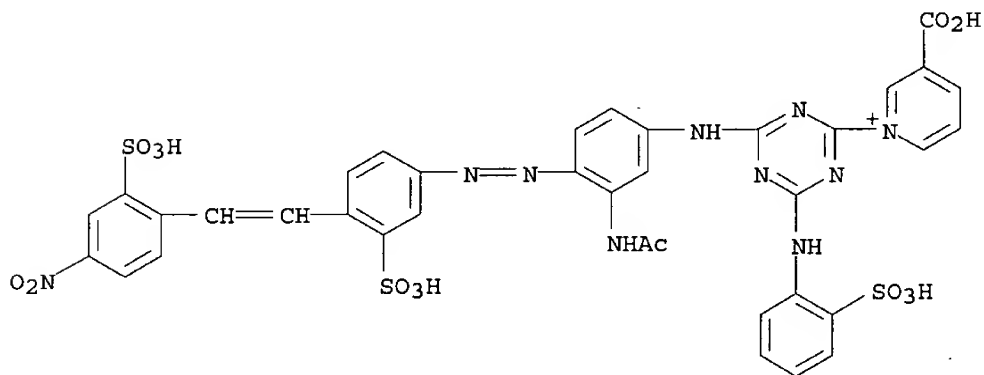
RN 126654-48-6 CAPLUS
 CN Pyridinium, 1-[4-[[3-[(aminocarbonyl)amino]-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]amino]-6-[(2,4-disulfophenyl)amino]-1,3,5-triazin-2-yl]-3-carboxy-, hydroxide (9CI) (CA INDEX NAME)

09567863



● OH⁻

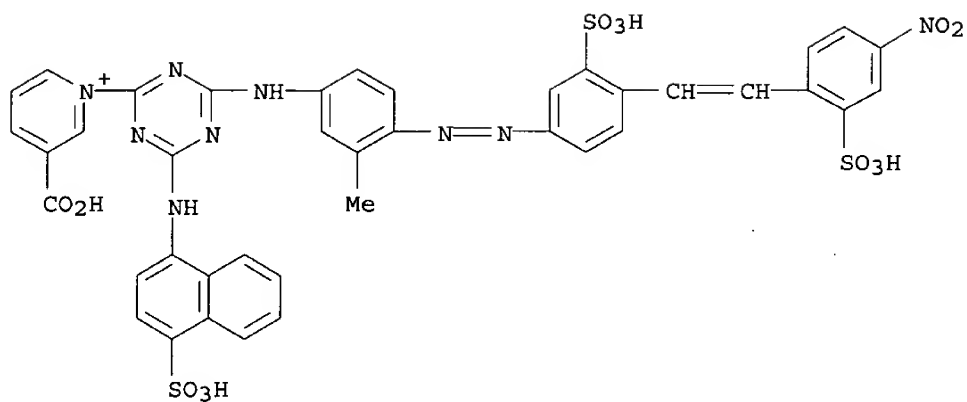
RN 126671-24-7 CAPLUS
 CN Pyridinium, 1-[4-[[3-(acetylamino)-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]amino]-6-[(2-sulfophenyl)amino]-1,3,5-triazin-2-yl]-3-carboxy-, hydroxide (9CI) (CA INDEX NAME)



● OH⁻

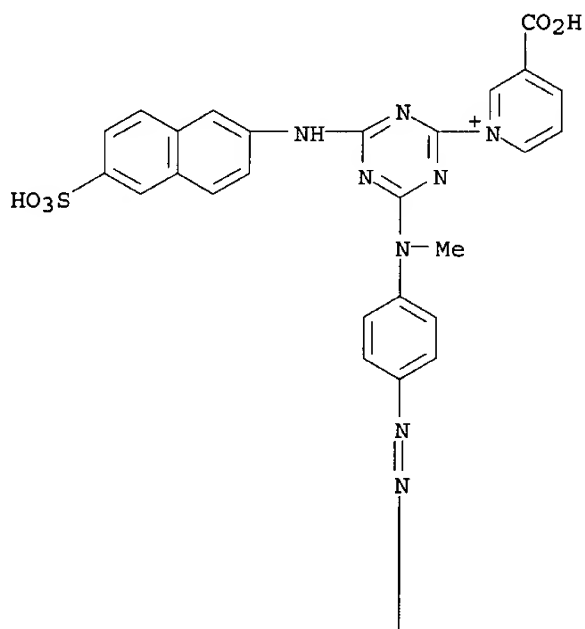
RN 126671-25-8 CAPLUS
 CN Pyridinium, 3-carboxy-1-[4-[[3-methyl-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]amino]-6-[(4-sulfo-1-naphthalenyl)amino]-1,3,5-triazin-2-yl]-, hydroxide (9CI) (CA INDEX NAME)

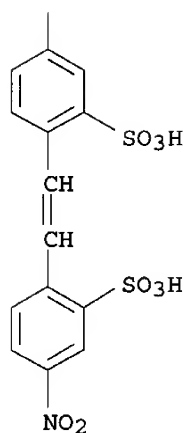
09567863



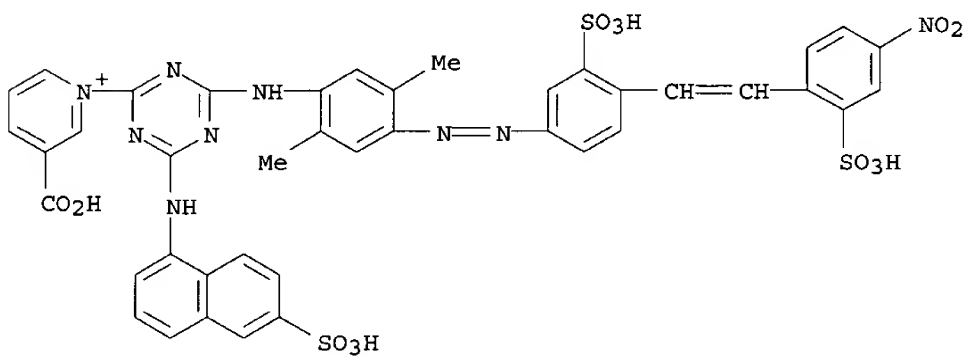
RN 126671-26-9 CAPLUS
 CN Pyridinium, 3-carboxy-1-[4-[methyl[4-[4-[2-(4-nitro-2-sulphophenyl)ethenyl]-3-sulphophenyl]azo]phenyl]amino]-6-[(6-sulfo-2-naphthalenyl)amino]-1,3,5-triazin-2-yl]-, hydroxide (9CI) (CA INDEX NAME)

PAGE 1-A

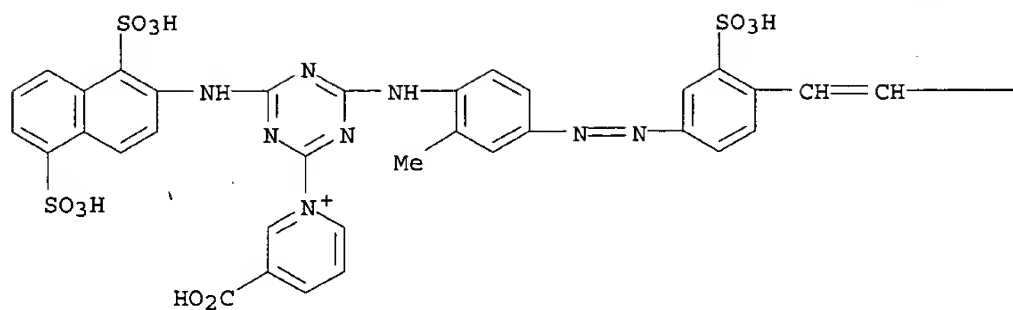
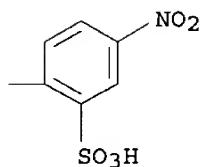




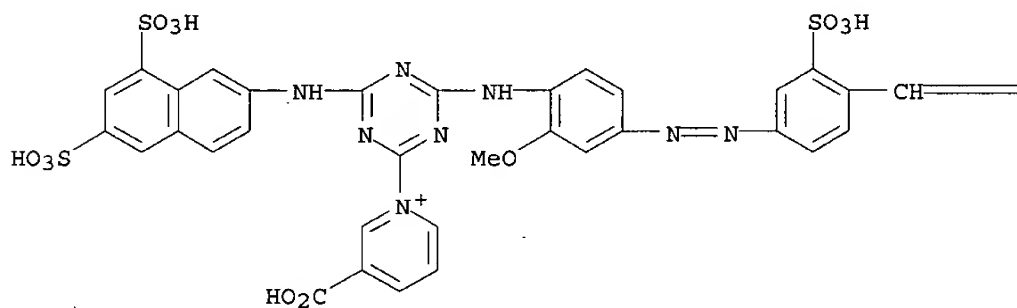
RN 126671-27-0 CAPLUS
 CN Pyridinium, 3-carboxy-1-[4-[[2,5-dimethyl-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]amino]-6-[(6-sulfo-1-naphthalenyl)amino]-1,3,5-triazin-2-yl]-, hydroxide (9CI) (CA INDEX NAME)

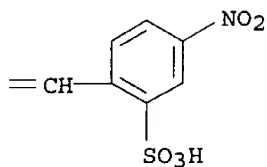


RN 126671-28-1 CAPLUS
 CN Pyridinium, 3-carboxy-1-[4-[(1,5-disulfo-2-naphthalenyl)amino]-6-[[2-methyl-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]amino]-1,3,5-triazin-2-yl]-, hydroxide (9CI) (CA INDEX NAME)

● OH⁻

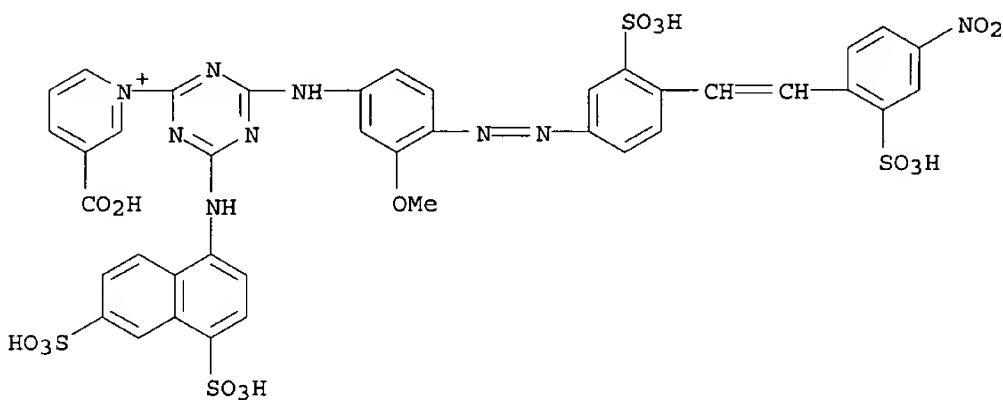
RN 126671-29-2 CAPLUS
 CN Pyridinium, 3-carboxy-1-[4-[(6,8-disulfo-2-naphthalenyl)amino]-6-[[2-methoxy-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]amino]-1,3,5-triazin-2-yl]-, hydroxide (9CI) (CA INDEX NAME)

● OH⁻



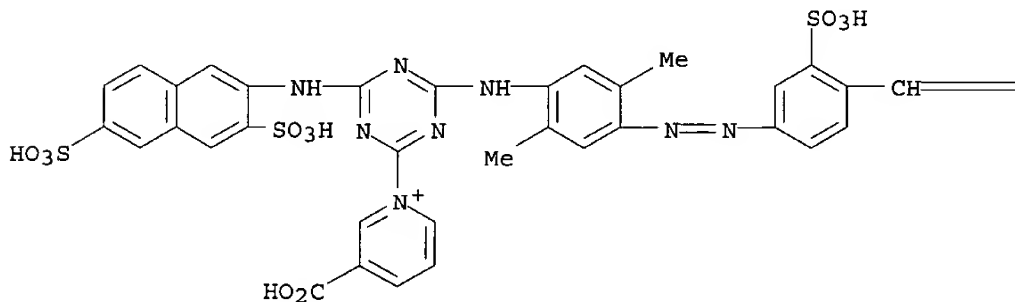
RN 126671-30-5 CAPLUS

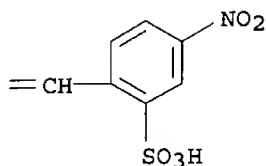
CN Pyridinium, 3-carboxy-1-[4-[(4,6-disulfo-1-naphthalenyl)amino]-6-[[3-methoxy-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]amino]-1,3,5-triazin-2-yl]-, hydroxide (9CI) (CA INDEX NAME)

● OH^-

RN 126671-31-6 CAPLUS

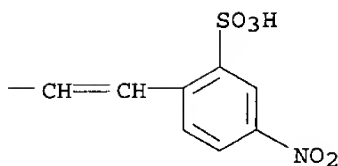
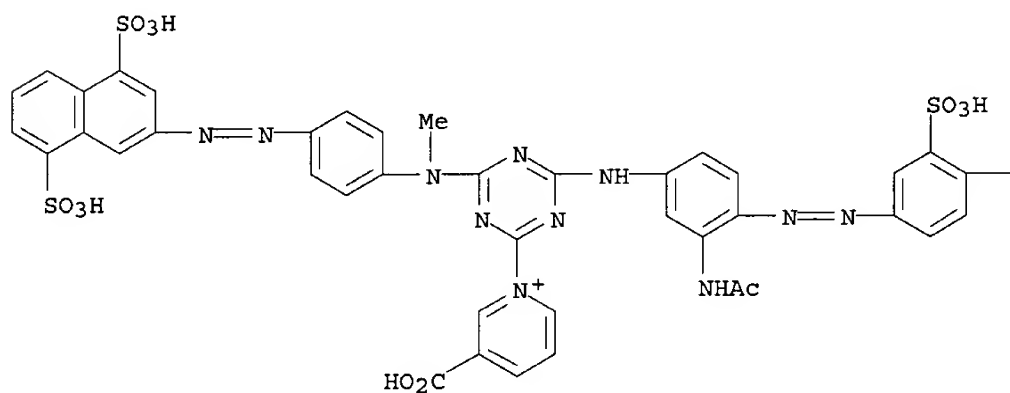
CN Pyridinium, 3-carboxy-1-[4-[[2,5-dimethyl-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]amino]-6-[(3,6-disulfo-2-naphthalenyl)amino]-1,3,5-triazin-2-yl]-, hydroxide (9CI) (CA INDEX NAME)

● OH^-



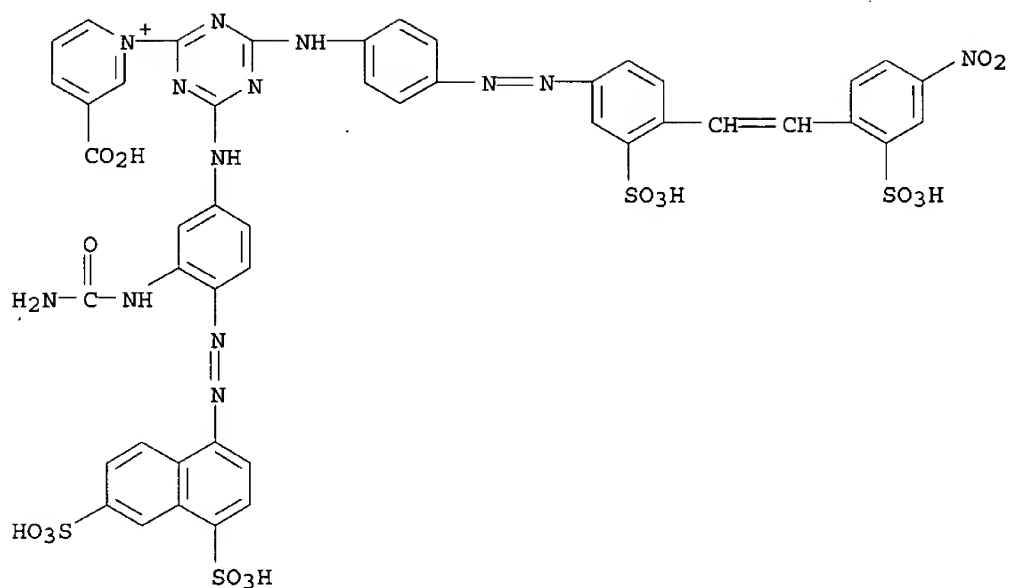
RN 126671-35-0 CAPLUS

CN Pyridinium, 1-[4-[[3-(acetylamino)-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]amino]-6-[[4-[(4,8-disulfo-2-naphthalenyl)azo]phenyl]methylamino]-1,3,5-triazin-2-yl]-3-carboxy-, hydroxide (9CI) (CA INDEX NAME)



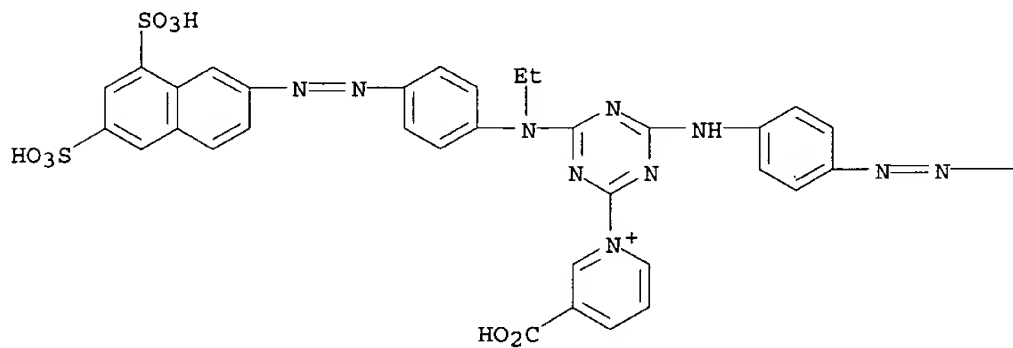
RN 126671-36-1 CAPLUS

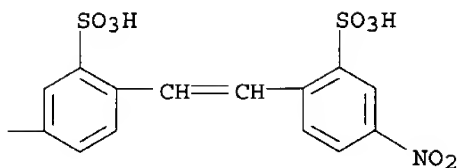
CN Pyridinium, 1-[4-[[3-[(aminocarbonyl)amino]-4-[(4,6-disulfo-1-naphthalenyl)azo]phenyl]amino]-6-[[4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]amino]-1,3,5-triazin-2-yl]-3-carboxy-, hydroxide (9CI) (CA INDEX NAME)



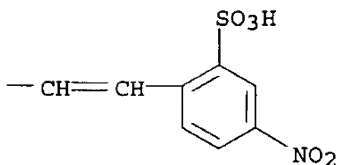
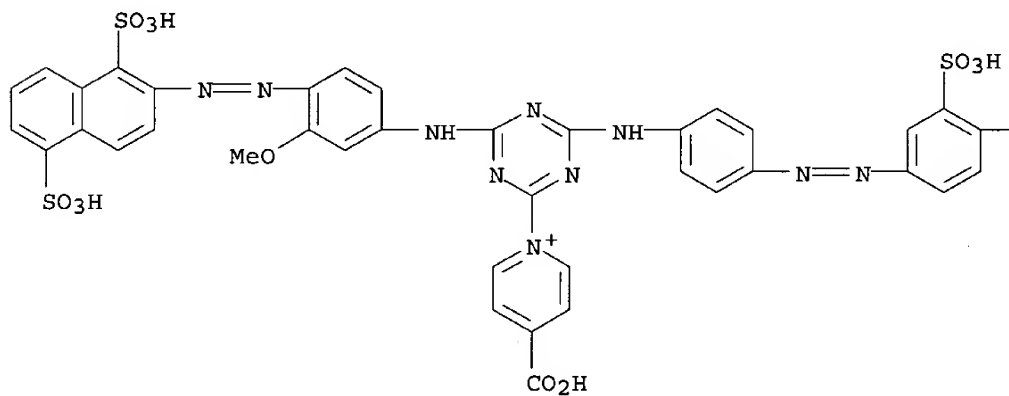
RN 126671-37-2 CAPLUS

CN Pyridinium, 3-carboxy-1-[4-[[4-[(6,8-disulfo-2-naphthalenyl)azo]phenyl]ethylamino]-6-[[4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]amino]-1,3,5-triazin-2-yl]-, hydroxide (9CI) (CA INDEX NAME)

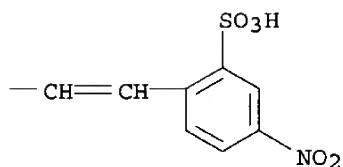
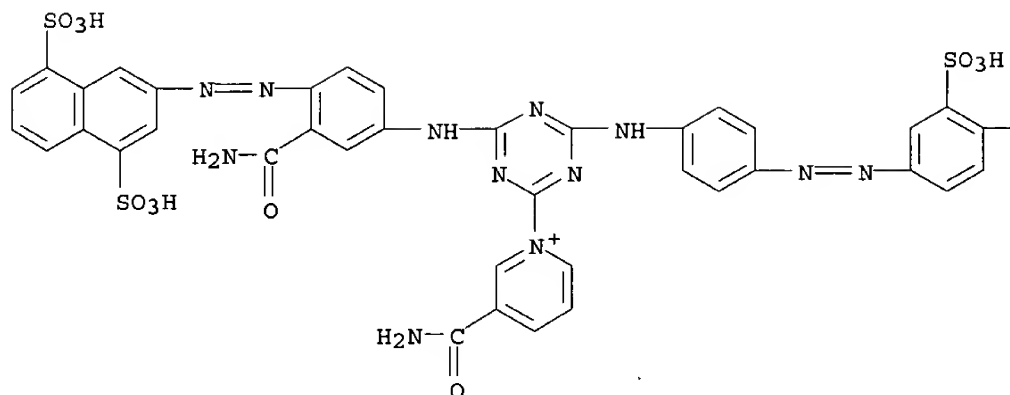




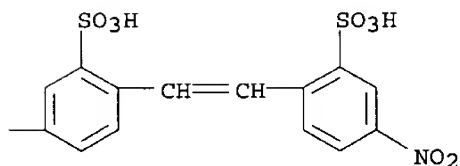
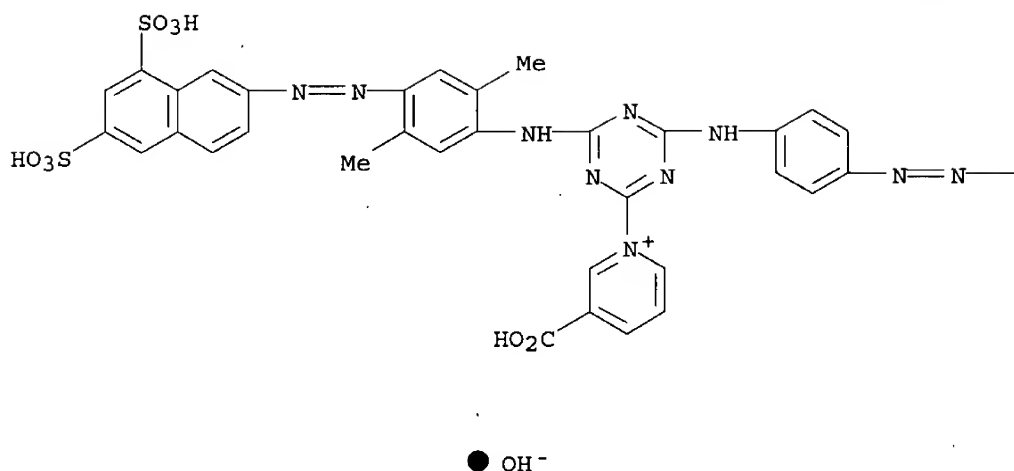
RN 126671-38-3 CAPLUS
 CN Pyridinium, 4-carboxy-1-[4-[[4-[(1,5-disulfo-2-naphthalenyl)azo]-3-methoxyphenyl]amino]-6-[[4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]amino]-1,3,5-triazin-2-yl]-, hydroxide (9CI) (CA INDEX NAME)



RN 126671-39-4 CAPLUS
 CN Pyridinium, 3-(aminocarbonyl)-1-[4-[[3-(aminocarbonyl)-4-[(4,8-disulfo-2-naphthalenyl)azo]phenyl]amino]-6-[[4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]amino]-1,3,5-triazin-2-yl]-, hydroxide (9CI) (CA INDEX NAME)



RN 126671-40-7 CAPLUS
 CN Pyridinium, 3-carboxy-1-[4-[[4-[(6,8-disulfo-2-naphthalenyl)azo]-2,5-dimethylphenyl]amino]-6-[[4-[[4-[2-(4-nitro-2-sulfo-phenyl)ethenyl]-3-sulfo-phenyl]azo]phenyl]amino]-1,3,5-triazin-2-yl]-, hydroxide (9CI) (CA INDEX NAME)



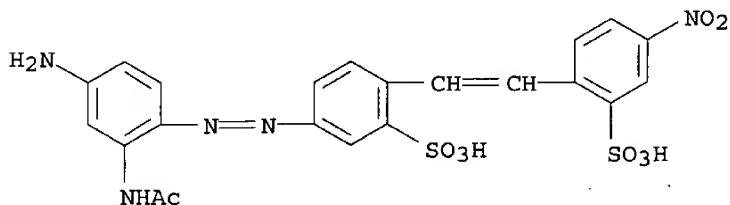
IT 126654-49-7P

RL: PREP (Preparation)

(manuf. and reaction with cyanuric chloride derivs.)

RN 126654-49-7 CAPLUS

CN Benzenesulfonic acid, 5-[[2-(acetamino)-4-aminophenyl]azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]- (9CI) (CA INDEX NAME)



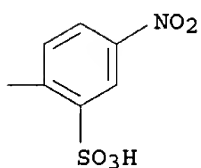
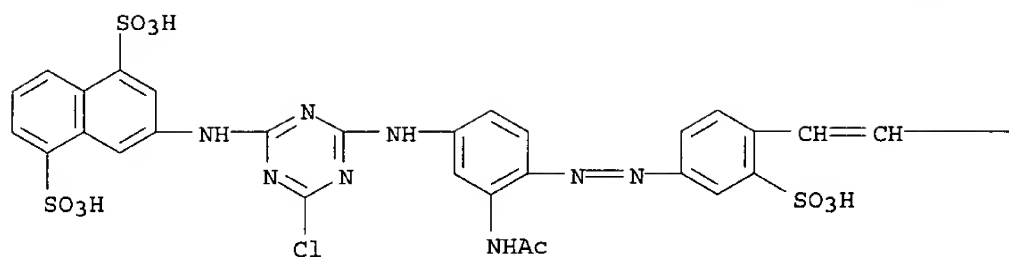
IT 126654-50-0P 126654-51-1P

RL: PREP (Preparation)

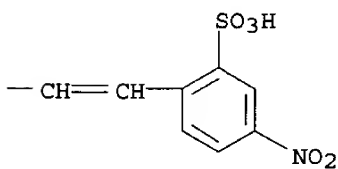
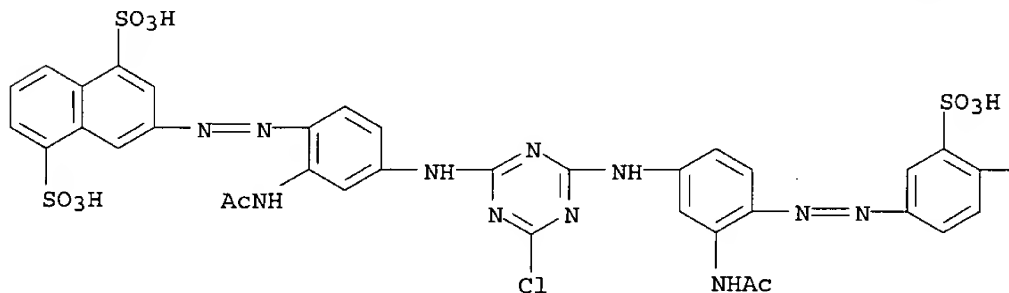
(manuf. and reaction with nicotinic acid)

RN 126654-50-0 CAPLUS

CN 1,5-Naphthalenedisulfonic acid, 3-[[4-[[3-(acetamino)-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]amino]-6-chloro-1,3,5-triazin-2-yl]amino]- (9CI) (CA INDEX NAME)



RN 126654-51-1 CAPLUS
 CN 1,5-Naphthalenedisulfonic acid, 3-[[2-(acetylamino)-4-[[4-[[3-(acetylamino)-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]amino]-6-chloro-1,3,5-triazin-2-yl]aminophenyl]azo]- (9CI) (CA INDEX NAME)



09567863

AN 1988:552994 CAPLUS
 DN 109:152994
 TI Method and apparatus for detecting hydrocarbon fuel leaks
 IN Wegrzyn, Jeffrey G.
 PA Lockheed Corp., USA
 SO U.S., 12 pp.
 CODEN: USXXAM
 DT Patent
 LA English
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4756854	A	19880712	US 1984-607450	19840507
	US 4615828	A	19861007	US 1984-674934	19841126
	US 4784959	A	19881115	US 1986-885554	19860714
PRAI	US 1984-607450		19840507		
	US 1984-674934		19841126		

AB A method and app. for detecting fuel leaks (esp. in aircraft) employing color variable indicators are described. The method comprises prepg. and applying a water-sol. nonstaining indicator **dye** to a test surface, observing color changes indicative of fuel leaks, and removing the indicator **dye** from the test surface. The indicator **dye** comprises a major portion of a dry inert mineral carrier (e.g. diatomaceous earth) and 0.1-5.0 wt.% of a direct **dye** which is nonstaining on painted surfaces and which does not migrate into or penetrate polyurethane or epoxy resin base painted surfaces. A suitable azo **dye** is 7-hydroxy-8-(4-phenylazophenylazo)-1,3-naphthalenedisulfonic acid disodium salt.

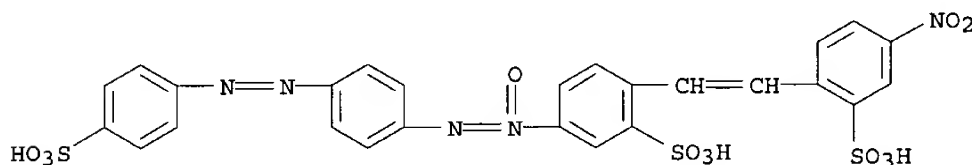
IT 39363-31-0

RL: USES (Uses)

(indicators contg., for detection of hydrocarbon fuel leaks)

RN 39363-31-0 CAPLUS

CN Benzenesulfonic acid, 2-[2-(4-nitro-2-sulfophenyl)ethenyl]-5-[[4-[(4-sulfophenyl)azo]phenyl]-NNO-azoxy]-, trisodium salt (9CI) (CA INDEX NAME)



●3 Na

L22 ANSWER 35 OF 86 CAPLUS COPYRIGHT 2003 ACS

AN 1988:530810 CAPLUS

DN 109:130810

TI Drying dichlorotriazine reactive dyes

IN Jarkovsky, Jiri; Macek, Frantisek

PA Czech.

SO Czech., 6 pp.

CODEN: CZXXA9

DT Patent

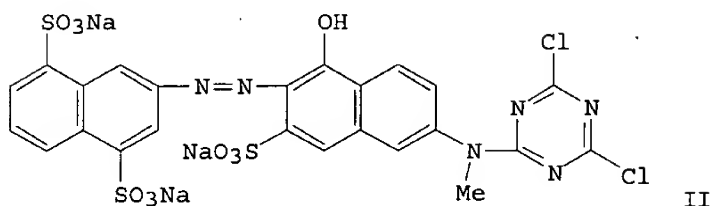
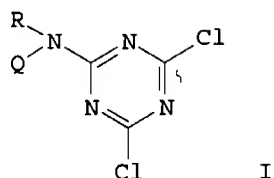
LA Czech

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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09567863

PI CS 248911 B1 19870312 CS 1984-4602 19840618
 PRAI CS 1984-4602 19840618
 OS MARPAT 109:130810
 GI



AB The title reactive dyes I [Q = residue of monoazo, disazo, or anthraquinone dye; R = H, Me) are produced in a cryst. form with improved hydrolytic storage stability by spray drying their suspensions in 5-25% aq. NaCl solns. Stabilizers (Na₂HPO₄, NaH₂PO₄, di-Et Na methanilate) and/or dusting regulators (dodecylbenzene) may be added before drying. The orange dye II (as a 52.5% paste) 200, NaCl 21, H₂O 140, Na₂HPO₄·12H₂O 30, and 2.5 mol HCl 17 parts were dried in a spray dryer giving 174 parts dry II, which exhibited only 3% increase in the hydrolyzed fraction during a storage stability test, vs. 10% for II dried without NaCl.

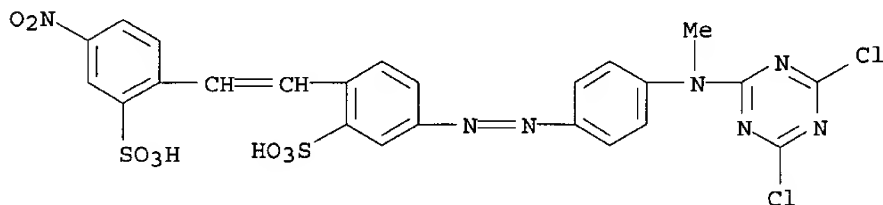
IT 70776-20-4

RL: PROC (Process)

(spray drying of, with sodium chloride for improved storage stability)

RN 70776-20-4 CAPLUS

CN Benzenesulfonic acid, 5-[[4-[(4,6-dichloro-1,3,5-triazin-2-yl)methylamino]phenyl]azo]-2-[2-(4-nitro-2-sulphophenyl)ethenyl]-, disodium salt (9CI) (CA INDEX NAME)



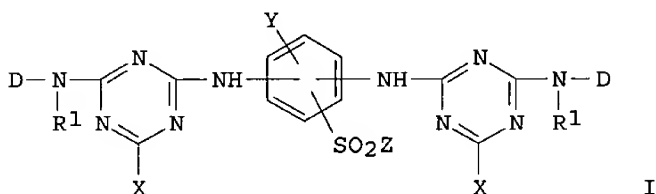
●2 Na

L22 ANSWER 36 OF 86 CAPLUS COPYRIGHT 2003 ACS
 AN 1987:638574 CAPLUS
 DN 107:238574
 TI Reactive dyes for cotton

09567863

IN Kato, Yoshiaki
PA Mitsubishi Chemical Industries Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 13 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 62172062	A2	19870729	JP 1986-13375	19860124
	JP 06062873	B4	19940817		
PRAI	JP 1986-13375		19860124		
GI					



AB The title dyes were prepd. having the general formula I [D = monoazo, polyazo, metal-contg. azo, anthraquinone, phthalocyanine, formazan dye residue; R1 = H, (un)substituted alkyl; X = halogen; Y = H, halogen, (un)substituted alkyl; Z = CH:CH2, CH2CH2OSO3H]. 3,5-(H2N)2C6H3SO2CH2CH2OSO3H was condensed 1:2 (molar) with 2-[4-(2,4-dichloro-s-triazin-6-ylamino)-2-methylphenylazo]naphthalene-4,8-disulfonic acid and salted to give the corresponding I, yellow on cotton. The dyes prepd. can be used with disperse dyes in 1-bath-1-step dyeing of polyester-cotton blends.

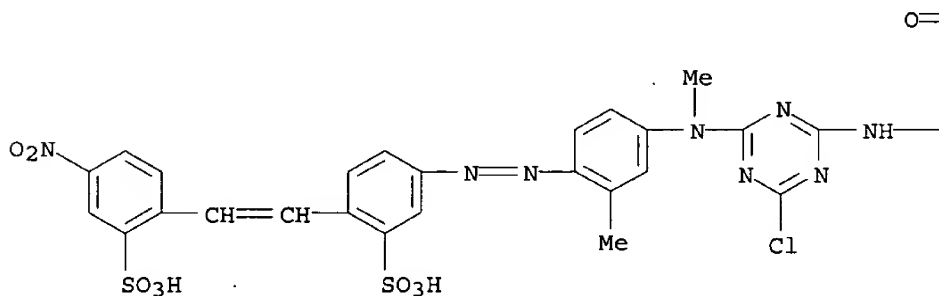
IT 111362-92-6 111362-93-7

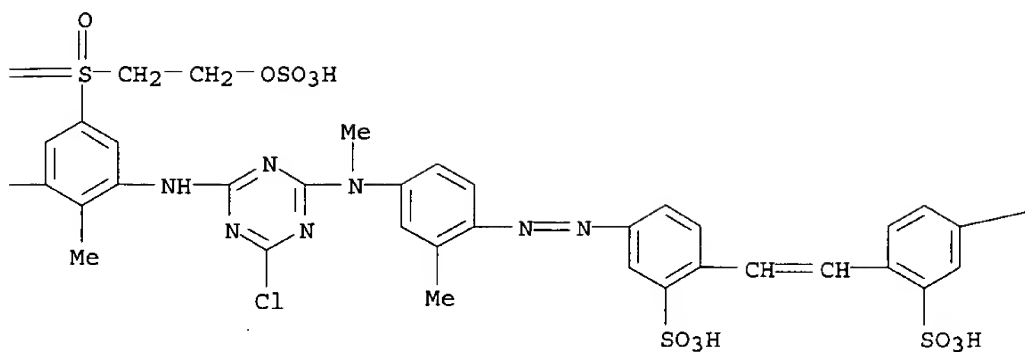
RL: TEM (Technical or engineered material use); USES (Uses) (dye, for cotton)

RN 111362-92-6 CAPLUS

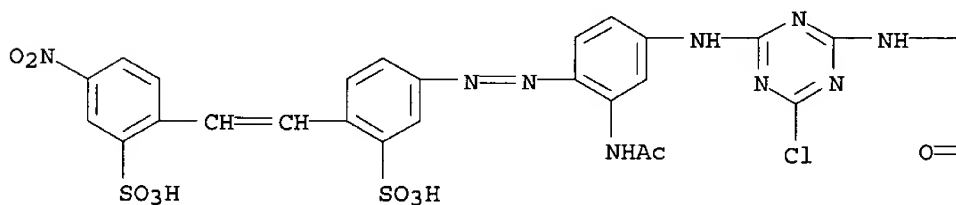
CN Benzenesulfonic acid, 3,3'-[[2-methyl-5-[[2-(sulfooxy)ethyl]sulfonyl]-1,3-phenylene]bis[imino(6-chloro-1,3,5-triazine-4,2-diyl)(methylimino)(2-methyl-4,1-phenylene)azo]]bis[6-[2-(4-nitro-2-sulfophenyl)ethenyl]- (9CI) (CA INDEX NAME)

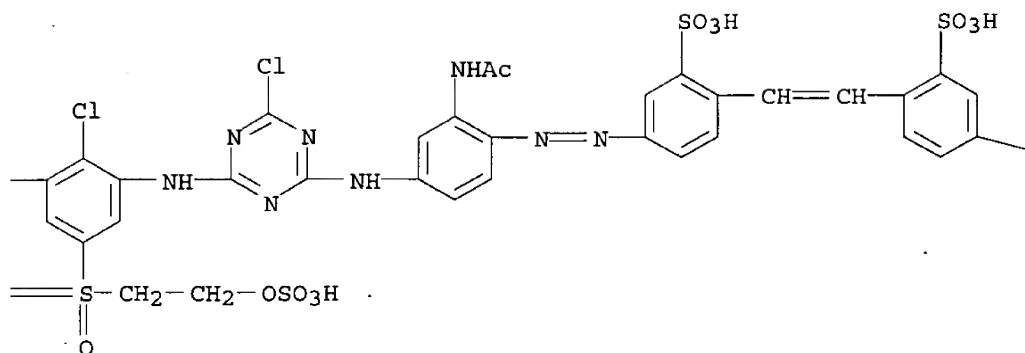
PAGE 1-A



—NO₂

RN 111362-93-7 CAPLUS
 CN Benzenesulfonic acid, 3,3'-[[2-chloro-5-[[2-(sulfooxy)ethyl]sulfonyl]-1,3-phenylene]bis[imino(6-chloro-1,3,5-triazine-4,2-diyl)imino[2-(acetylamino)-4,1-phenylene]azo]]bis[6-[2-(4-nitro-2-sulfophenyl)ethenyl]- (9CI) (CA INDEX NAME)



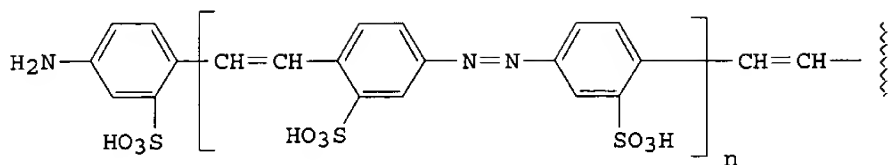


NO₂

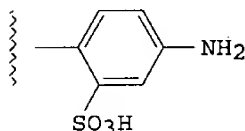
L22 ANSWER 37 OF 86 CAPLUS COPYRIGHT 2003 ACS
 AN 1987:646742 CAPLUS
 DN 107:246742
 TI Photosensitive recording element
 IN Wallbillich, Guenter; Neumann, Peter; Hansen, Guenter
 PA BASF A.-G. , Fed. Rep. Ger.
 SO Ger. Offen., 12 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3606266	A1	19870903	DE 1986-3606266	19860227
	EP 239782	A2	19871007	EP 1987-102556	19870224
	EP 239782	A3	19880720		
	EP 239782	B1	19910626		
	R: AT, BE, CH, DE, ES, FR, GB, IT, LI, NL, SE				
	AT 64791	E	19910715	AT 1987-102556	19870224
	JP 62210443	A2	19870916	JP 1987-43206	19870227
	US 4948702	A	19900814	US 1989-363420	19890605
PRAI	DE 1986-3606266		19860227		
	US 1987-16849		19870220		
	EP 1987-102556		19870224		
	US 1988-273636		19881118		
GI					

09567863



@ 4 H₂N[(CH₂)₂OH]₂



I

AB Photosensitive recording elements for the prepn. of printing plates, relief plates, or resist patterns are composed of a dimensionally stable support, optionally, .gtoreq.1 interlayer, and a solid, photosensitive recording layer. The elements, which have good photosensitivity and high storage stability, contain in the photosensitive recording layer and/or an optional interlayer a special sulfo group-contg. azo or azoxy dye obtained by the self-condensation of 5-nitro-o-toluenesulfonic acid. Thus, an Al plate with an adhesive layer from an aq. soln. of poly(vinylpyrrolidone) contg. I was laminated with a poly(vinylpyrrolidone)-based photosensitive film and then stored. After a 3 mo storage the exposure characteristics of the material were unaltered.

IT 111647-66-6

RL: USES (Uses)

(printing plates with photosensitive layer contg., for improved stability)

RN 111647-66-6 CAPLUS

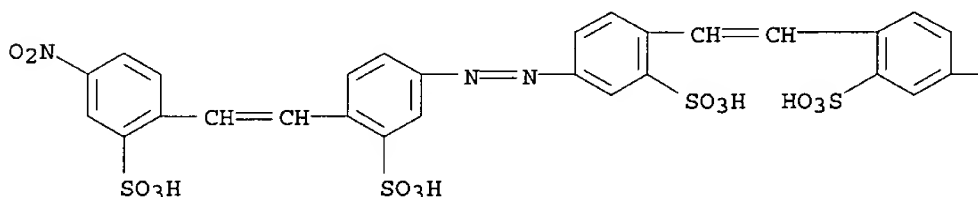
CN Benzenesulfonic acid, 3,3'-azobis[6-[2-[4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]-2-sulfophenyl]ethenyl]-, compd. with N-ethylethanamine (1:8) (9CI) (CA INDEX NAME)

CM 1

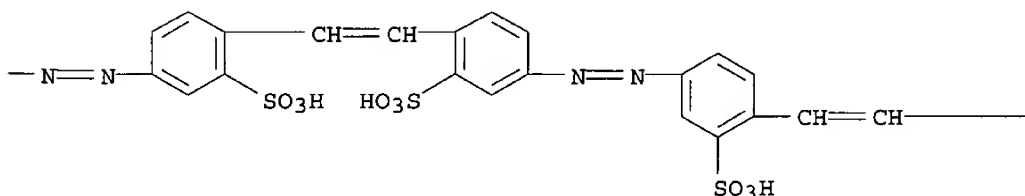
CRN 111647-65-5

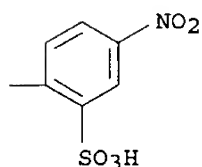
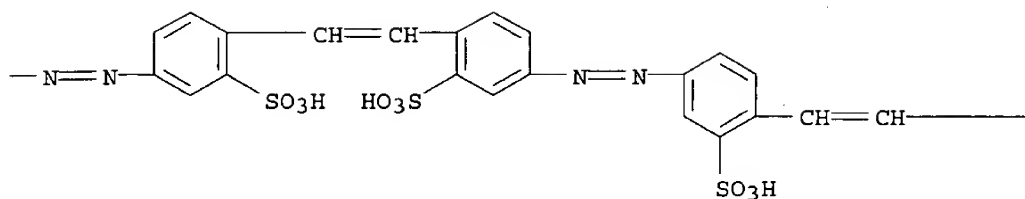
CMF C56 H40 N8 O28 S8

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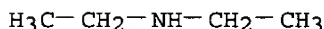




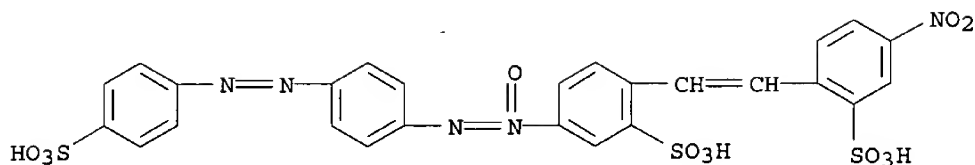
CM 2

CRN 109-89-7

CMF C4 H11 N



L22 ANSWER 38 OF 86 CAPLUS COPYRIGHT 2003 ACS
 AN 1987:441590 CAPLUS
 DN 107:41590
 TI Effect of dyeing conditions on diffusion of dyes in textiles
 AU Birger, B. N.; Mel'nikov, B. N.; Livadonova, A. B.
 CS Ivanov. Khim.-Tekhnol. Inst., Ivanovo, USSR
 SO Zhurnal Prikladnoi Khimii (Sankt-Peterburg, Russian Federation) (1987),
 60(5), 1116-19
 CODEN: ZPKHAB; ISSN: 0044-4618
 DT Journal
 LA Russian
 AB The diffusion of direct dyes in cellophane as a model for dyeing textiles
 in the presence of NaCl was studied. The local diffusion coeff. (D) of
 the dye in cellophane films depends on the concn. of the
 dye and Cl⁻. The D was detd. for Direct Lightfast Orange 2Zh,
 Direct Lightfast Yellow ZKh, Direct Green ZhKh, and Chrysophenine.
 IT 39363-31-0
 RL: PEP (Physical, engineering or chemical process); PROC (Process)
 (diffusion of, in cellophane films, effect of dyeing conditions on)
 RN 39363-31-0 CAPLUS
 CN Benzenesulfonic acid, 2-[2-(4-nitro-2-sulfophenyl)ethenyl]-5-[[4-[(4-
 sulfophenyl)azo]phenyl]-NNO-azoxy]-, trisodium salt (9CI) (CA INDEX NAME)



● 3 Na

L22 ANSWER 39 OF 86 CAPLUS COPYRIGHT 2003 ACS

AN 1987:122934 CAPLUS

DN 106:122934

TI Method and apparatus for detecting hydrocarbon fuel leaks

IN Wegrzyn, Jeffrey G.

PA Lockheed Corp., USA

SO U.S., 9 pp. Cont.-in-part of U.S. Ser. No. 607,450.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4615828	A	19861007	US 1984-674934	19841126
	US 4756854	A	19880712	US 1984-607450	19840507
	US 4784959	A	19881115	US 1986-885554	19860714
PRAI	US 1984-607450		19840507		
	US 1984-674934		19841126		

AB A indicator dye compn. for detecting hydrocarbon fuel leaks (e.g., in aircraft) contains 0.1-5.0 wt.% direct dye (e.g., 7-hydroxy-8-[(4-phenylazophenyl)azo]-1,3-naphthalenedisulfonic acid disodium salt) which is nonstaining on painted surfaces and which does not penetrate or migrate into polyurethane or epoxy resin base painted surfaces, 0.1-1.0 wt.% surfactant, and balance dry inert mineral carriers.

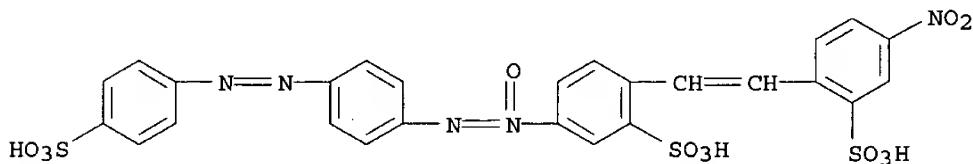
IT 39363-31-0

RL: USES (Uses)

(dye indicator compn. contg., for detection of hydrocarbon fuel leaks)

RN 39363-31-0 CAPLUS

CN Benzenesulfonic acid, 2-[2-(4-nitro-2-sulfophenyl)ethenyl]-5-[[4-[(4-sulfophenyl)azo]phenyl]-NNO-azoxy]-, trisodium salt (9CI) (CA INDEX NAME)



3 Na

L22 ANSWER 40 OF 86 CAPLUS COPYRIGHT 2003 ACS

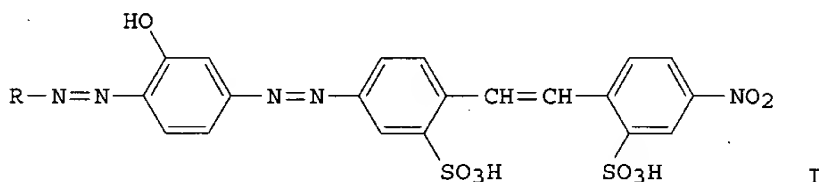
AN 1987:34638 CAPLUS

DN 106:34638

09567863

TI Copper complex stilbene disazo dyes
 IN Knoechel, Gerhard; Specht, Wolfgang; Oschatz, Siegfried; Steinert, Karl
 Heinz
 PA VEB Chemiekombinat Bitterfeld, Ger. Dem. Rep.
 SO Ger. (East), 3 pp.
 CODEN: GEXXA8
 DT Patent
 LA German
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DD 236331	A1	19860604	DD 1985-275232	19850417
PRAI	DD 1985-275232		19850417		
OS	CASREACT 106:34638				
GI					



AB Stilbene azo dyes I [R = (un)substituted Ph or naphthyl] form copper complexes, which are useful for dyeing cellulose-contg. materials in brown tones. Thus, 5-amino-2-chlorobenzenesulfonic acid was diazotized and coupled with 3-aminophenol, the dye salted out, filtered off, and condensed with 4,4'-dinitro-2,2'-stilbenedisulfonic acid in NaOH soln. under reflux. The disazo dye product was adjusted to pH 7 and allowed to react with a soln. contg. CuSO4 and NaOAc at 20-35.degree.; 35% H2O2 was dropped in and the soln. neutralized with NaOH and salted out to give I (R = 4-chloro-3-sulfophenyl) Na salt, which dyed cellulose fibers in a brown shade.

IT 106222-76-8P

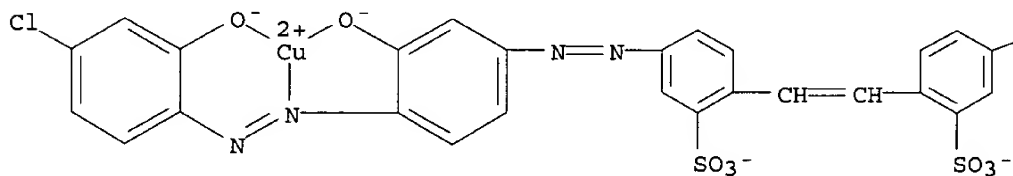
RL: PREP (Preparation)

(manuf. of, as brown dye for cellulose fibers)

RN 106222-76-8 CAPLUS

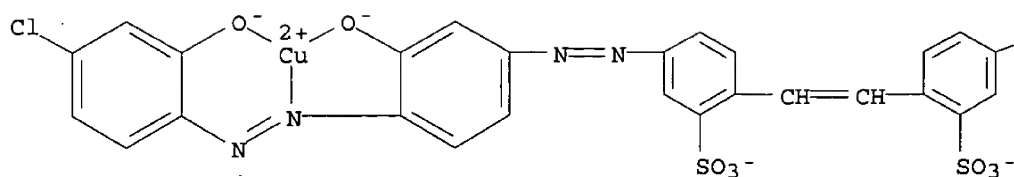
CN Cuprate(3-), [5-[[4-[[4-chloro-2-hydroxy-3(or 5)-sulfophenyl]azo]-3-hydroxyphenyl]azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]benzenesulfonato(5-)]-, trisodium (9CI) (CA INDEX NAME)

PAGE 1-A



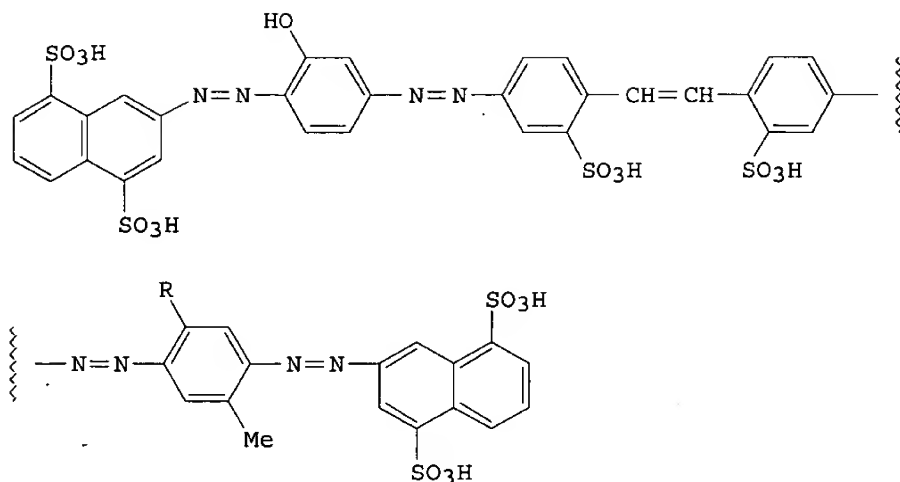
D1-SO3-

● 3 Na+

D1-SO₃⁻● 3 Na⁺—NO₂

L22 ANSWER 41 OF 86 CAPLUS COPYRIGHT 2003 ACS
 AN 1987:51695 CAPLUS
 DN 106:51695
 TI Stilbene azo dyes and their copper complexes
 IN Knoechel, Gerhard; Specht, Wolfgang; Oschatz, Siegfried; Steinert, Karl
 Heinz
 PA VEB Chemiekombinat Bitterfeld, Ger. Dem. Rep.
 SO Ger. (East), 3 pp.
 CODEN: GEXXA8
 DT Patent
 LA German
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DD 236329	A1	19860604	DD 1985-275230	19850417
PRAI	DD 1985-275230		19850417		
OS	CASREACT 106:51695				
GI					



AB Stilbene azo dyes I (R = H, OMe) are prepd. by basic condensation of an amino azo dye (prepd. by coupling diazotized 2-amino-4,8-naphthalenedisulfonic acid with 3-hydroxyaniline) with 4,4'-dinitro-2,2'-stilbenedisulfonic acid under reflux conditions. The disazo dye is again condensed under basic conditions, with an amino azo dye prepd. by coupling diazotized 2-amino-4,8-naphthalenedisulfonic acid and m-toluidine or p-cresidine. Cu complexes, useful for dyeing cellulose-contg. materials and leather, are then prepd. by oxidative copperization of the tetrakis azo dyes. Thus, 2-amino-4,8-naphthalenedisulfonic acid was diazotized and coupled with 3-hydroxyaniline; the amino azo dye was condensed with 4,4'-dinitro-2,2'-stilbenedisulfonic acid under reflux in NaOH soln. This disazo dye was again condensed by refluxing under basic conditions with an amino azo dye (prepd. by coupling diazotized 2-amino-4,8-naphthalenedisulfonic acid with m-toluidine) to give I (R = H). A Cu complex was formed by dissolving I (R = H) in a soln. contg. CuSO₄ and NaOAc at 20-35.degree., and then dropping in 35% H₂O₂. The product dyed leather and cellulose in a yellowish-brown shade.

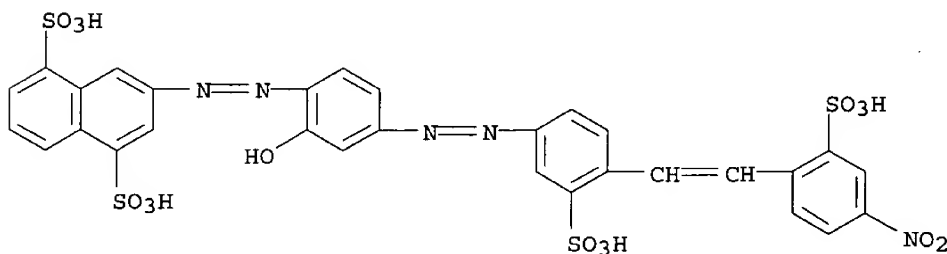
IT 106199-74-0

RL: USES (Uses)

(condensation of, with (aminomethylphenylazo)naphthalenedisulfonic acid)

RN 106199-74-0 CAPLUS

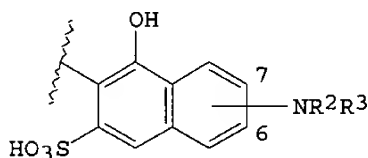
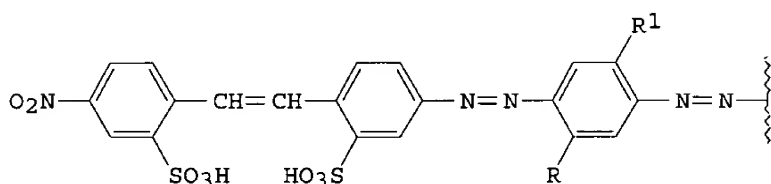
CN 1,5-Naphthalenedisulfonic acid, 3-[[2-hydroxy-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]- (9CI) (CA INDEX NAME)



09567863

DN 103:38695
 TI Water-soluble disazo compounds and their copper complexes
 IN Sato, Giichi; Matuo, Tadashi; Tabei, Tooru
 PA Nippon Kayaku Co., Ltd. , Japan
 SO U.S., 8 pp.
 CODEN: USXXAM
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4514559	A	19850430	US 1984-604475	19840427
	EP 160113	A1	19851106	EP 1984-104846	19840430
	EP 160113	B1	19870923		
	R: CH, DE, FR, GB, LI				
PRAI	US 1984-604475		19840427		
GI					



I

AB Compds. of general structure I (R = H, Me, MeO, EtO; R1, R2 = H, Me; R3 = H, CH2CH2OH, Ph, C6H4CO2H, C6H4SO3H; NR2R3 in 6- or 7-position) and their Cu complexes are prep'd. and used to dye poly(vinyl alc.) (II) [9002-89-5] sheet or film for use as optical filters or (when stretched uniaxially) as polarizers. Thus, diazotization of di-Na 4-amino-4'-nitrostilbene-2,2'-disulfonate [6634-82-8], coupling with 2-methoxy-5-methylaniline [120-71-8], diazotization, and coupling with N-phenyl-J acid [119-40-4] gave I (R = Me, R1 = MeO, R2 = H, R3 = Ph; NR2R3 in 6-position) (III) [94079-97-7] with max 553 nm (in buffer at pH 9.5). Numerous other I and I Cu complexes were also prep'd. A 4-fold-stretched II film bonded on one side to a cellulose acetate supporting film was dyed in an aq. bath contg. III to give film with max. 588 nm, visual % transmission 49.13 for a single film, 35.63 for 2 films in parallel position, and 10.75 for 2 films in crossed position; av. calcd. polarization (.rho.) was 73.23%.

IT 94079-92-2P 94079-94-4P 94079-95-5P
 94079-96-6P 94079-97-7P 94080-35-0P
 94118-35-1P 94118-36-2P 97097-91-1P
 97097-92-2P 97201-10-0P 97201-11-1P
 97223-67-1P 97223-68-2P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (dye, manuf. of)

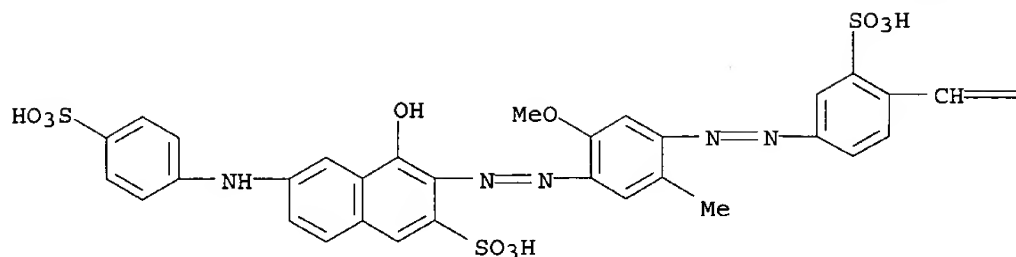
RN 94079-92-2 CAPLUS

CN 2-Naphthalenesulfonic acid, 4-hydroxy-3-[[2-methoxy-5-methyl-4-[[4-[2-(4-nitro-2-sulfonylphenyl)ethenyl]-3-sulfonylphenyl]azo]phenyl]azo]-6-[(4-

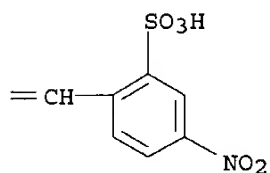
09567863

sulfophenyl)amino]- (9CI) (CA INDEX NAME)

PAGE 1-A



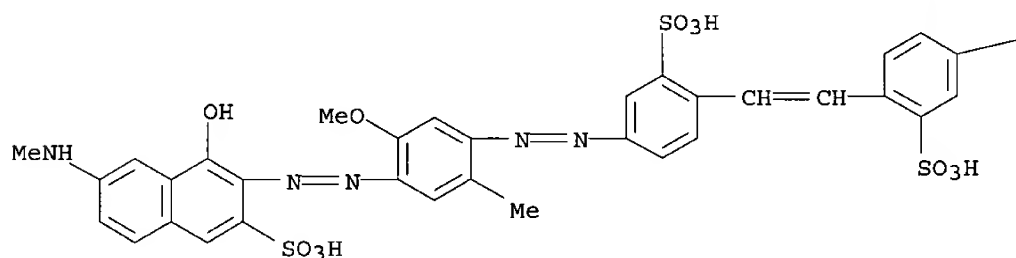
PAGE 1-B



RN 94079-94-4 CAPLUS

CN 2-Naphthalenesulfonic acid, 4-hydroxy-3-[[2-methoxy-5-methyl-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]-6-(methylanino)- (9CI) (CA INDEX NAME)

PAGE 1-A



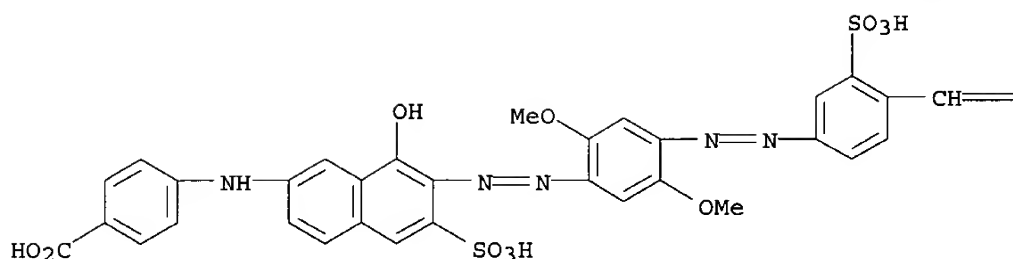
PAGE 1-B

—NO₂

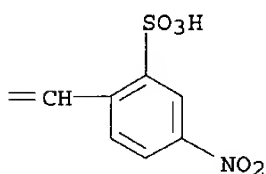
RN 94079-95-5 CAPLUS

CN Benzoic acid, 4-[[7-[[2,5-dimethoxy-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]-8-hydroxy-6-sulfo-2-naphthalenyl]amino]- (9CI) (CA INDEX NAME)

PAGE 1-A



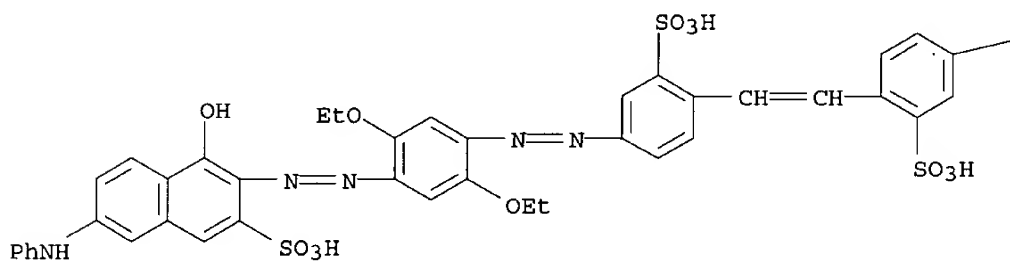
PAGE 1-B



RN 94079-96-6 CAPLUS

CN 2-Naphthalenesulfonic acid, 3-[[2,5-diethoxy-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]-4-hydroxy-7-(phenylamino)- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

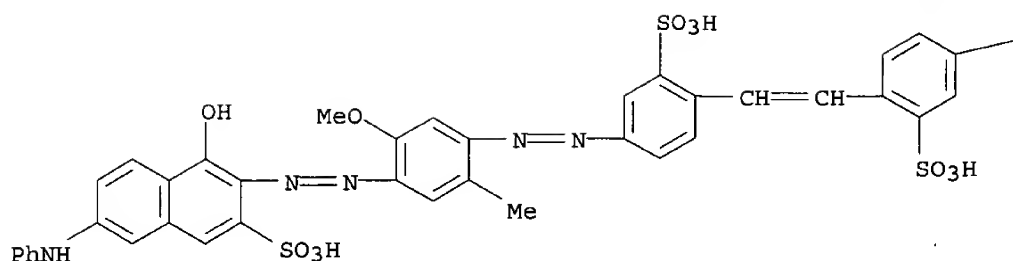
—NO₂

RN 94079-97-7 CAPLUS

CN 2-Naphthalenesulfonic acid, 4-hydroxy-3-[[2-methoxy-5-methyl-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]-7-(phenylamino)- (9CI) (CA INDEX NAME)

09567863

PAGE 1-A



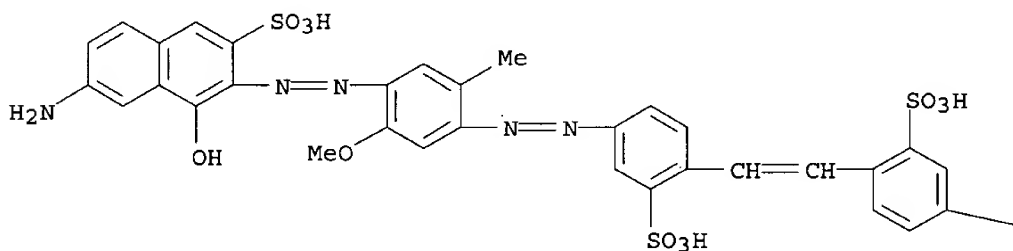
PAGE 1-B

—NO₂

RN 94080-35-0 CAPLUS

CN 2-Naphthalenesulfonic acid, 6-amino-4-hydroxy-3-[[2-methoxy-5-methyl-4-[[4-[2-(4-nitro-2-sulphophenyl)ethenyl]-3-sulphophenyl]azo]phenyl]azo]- (9CI)
(CA INDEX NAME)

PAGE 1-A

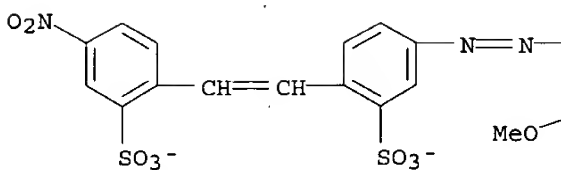


PAGE 1-B

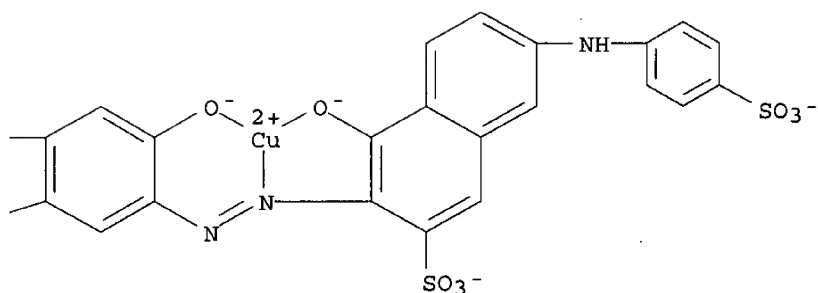
—NO₂

RN 94118-35-1 CAPLUS

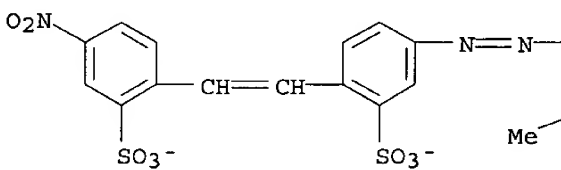
CN Cuprate (4-), [4-hydroxy-3-[[2-hydroxy-5-methoxy-4-[[4-[2-(4-nitro-2-sulphophenyl)ethenyl]-3-sulphophenyl]azo]phenyl]azo]-7-[(4-sulphophenyl)amino]-2-naphthalenesulfonato(6-)]-, tetrahydrogen (9CI) (CA INDEX NAME)



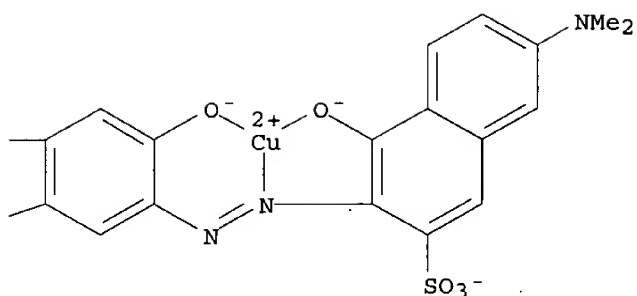
● 4 H⁺



RN 94118-36-2 CAPLUS
 CN Cuprate(3-), [7-(dimethylamino)-4-hydroxy-3-[[2-hydroxy-5-methyl-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]-2-naphthalenesulfonato(5-)]-, trihydrogen (9CI) (CA INDEX NAME)

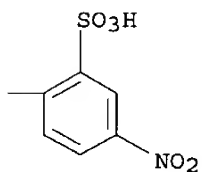
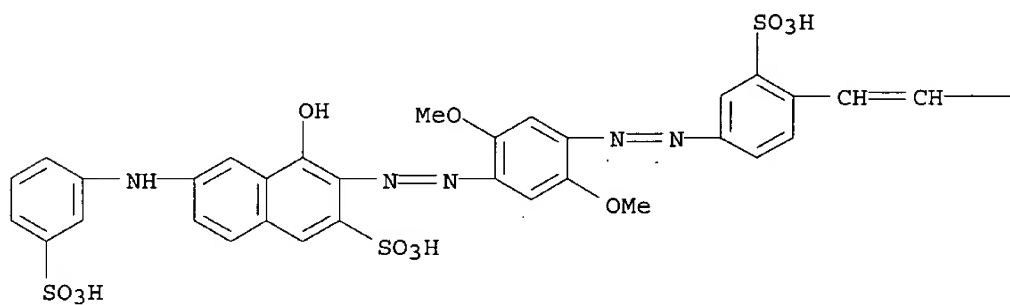


3 H⁺



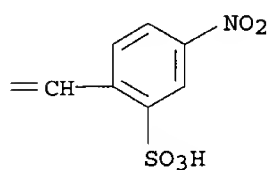
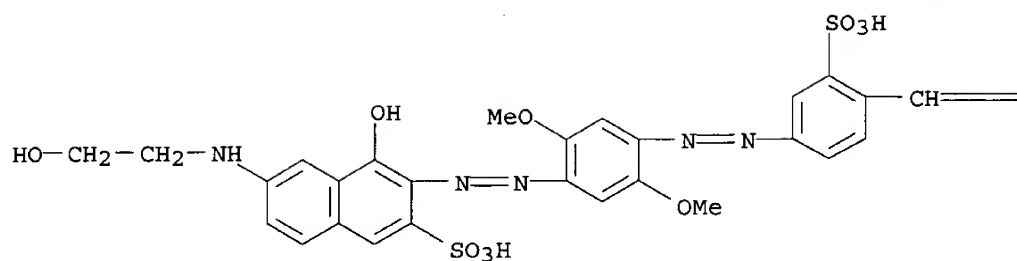
RN 97097-91-1 CAPLUS

CN 2-Naphthalenesulfonic acid, 3-[[[2,5-dimethoxy-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]-4-hydroxy-6-[(3-sulfophenyl)amino]- (9CI) (CA INDEX NAME)



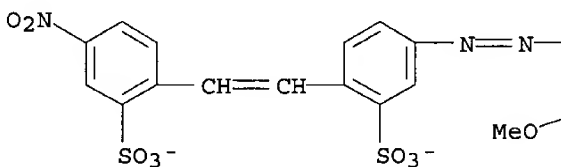
RN 97097-92-2 CAPLUS

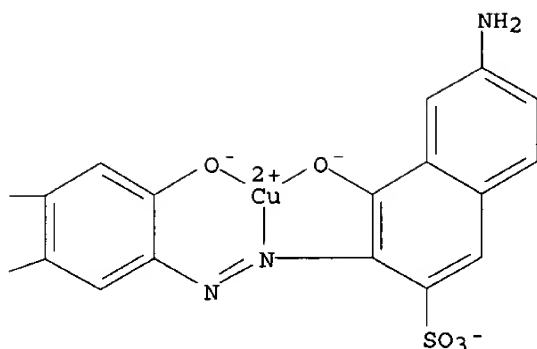
CN 2-Naphthalenesulfonic acid, 3-[[[2,5-dimethoxy-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]-4-hydroxy-6-[(2-hydroxyethyl)amino]- (9CI) (CA INDEX NAME)



RN 97201-10-0 CAPLUS

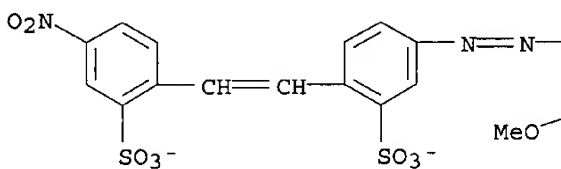
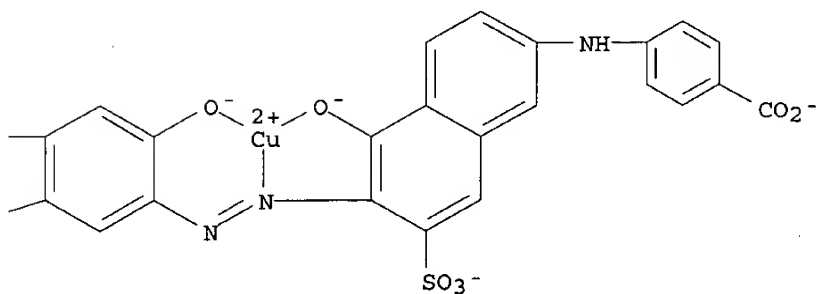
CN Cuprate(3-), [6-amino-4-hydroxy-3-[[2-hydroxy-5-methoxy-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]-2-naphthalenesulfonato(5-)]-, trihydrogen (9CI) (CA INDEX NAME)





RN 97201-11-1 CAPLUS

CN Cuprate(4-), [4-[[5-hydroxy-6-[[2-hydroxy-5-methoxy-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]-7-sulfo-2-naphthalenyl]amino]benzoato(6-)]-, tetrahydrogen (9CI) (CA INDEX NAME)

● 4 H⁺

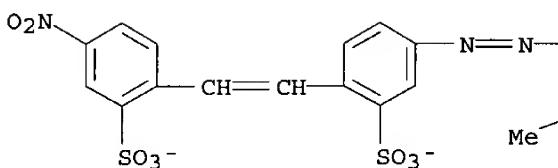
RN 97223-67-1 CAPLUS

CN Cuprate(3-), [6-amino-4-hydroxy-3-[[2-hydroxy-5-methyl-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]-2-

09567863

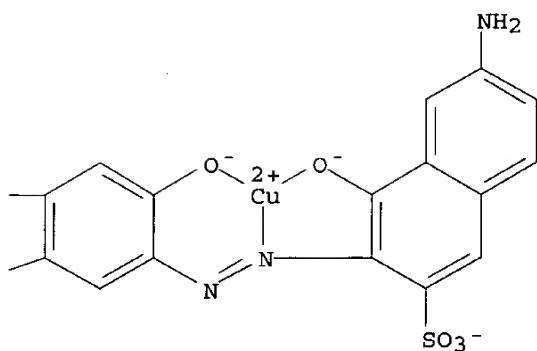
naphthalenesulfonato(5-)]-, trihydrogen (9CI) (CA INDEX NAME)

PAGE 1-A



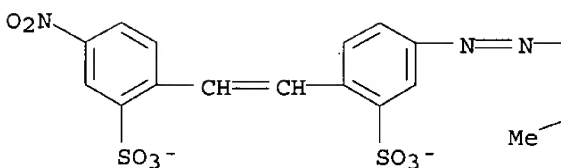
● 3 H⁺

PAGE 1-B

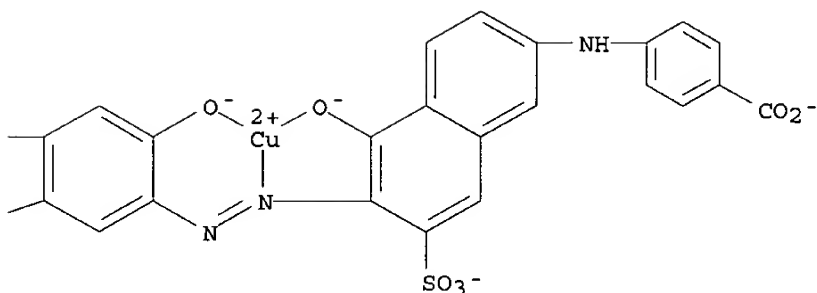


RN 97223-68-2 CAPLUS

CN Cuprate(4-), [4-[[[5-hydroxy-6-[[2-hydroxy-5-methyl-4-[[4-[2-(4-nitro-2-sulfo-phenyl)ethenyl]-3-sulfo-phenyl]azo]phenyl]azo]-7-sulfo-2-naphthalenyl]amino]benzoato(6-)]-, tetrahydrogen (9CI) (CA INDEX NAME)



● 4 H⁺



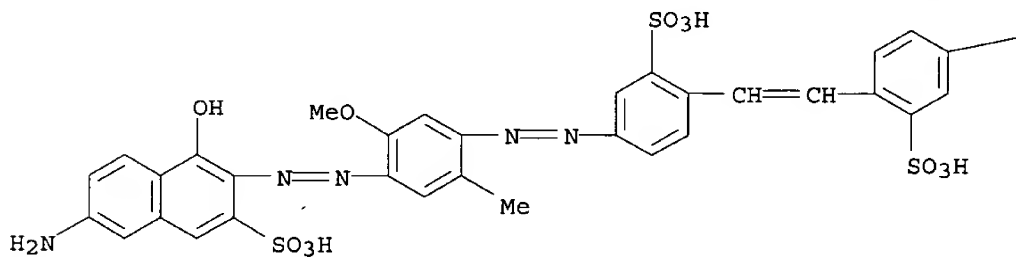
IT 94079-85-3P 94079-86-4P 94079-87-5P
 94079-88-6P 94079-89-7P 94079-90-0P
 94079-91-1P 94118-34-0P 94118-37-3P
 97097-90-0P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

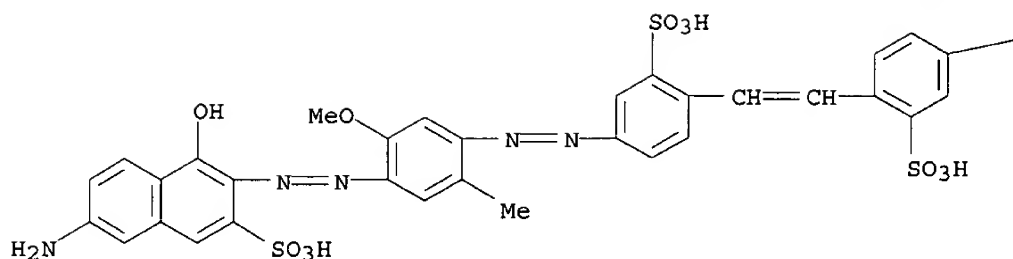
(dye, manuf. of, for poly(vinyl alc.) film with optical polarization properties)

RN 94079-85-3 CAPLUS

CN 2-Naphthalenesulfonic acid, 7-amino-4-hydroxy-3-[[2-methoxy-5-methyl-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]- (9CI)
 (CA INDEX NAME)



PAGE 1-A



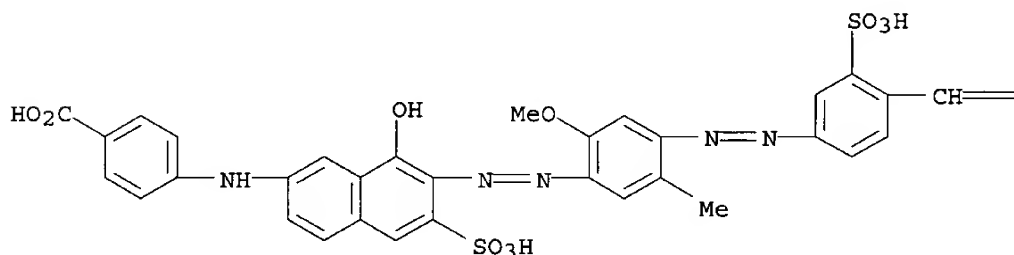
PAGE 1-B

—NO₂

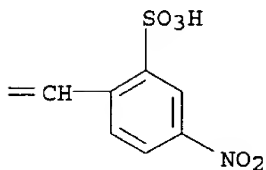
RN 94079-86-4 CAPLUS

CN Benzoic acid, 4-[[[8-hydroxy-7-[[2-methoxy-5-methyl-4-[[4-[2-(4-nitro-2-sulphophenyl)ethenyl]-3-sulphophenyl]azo]phenyl]azo]-6-sulfo-2-naphthalenyl]amino]-3-sulphophenyl]ethenyl]benzoic acid (9CI) (CA INDEX NAME)

PAGE 1-A



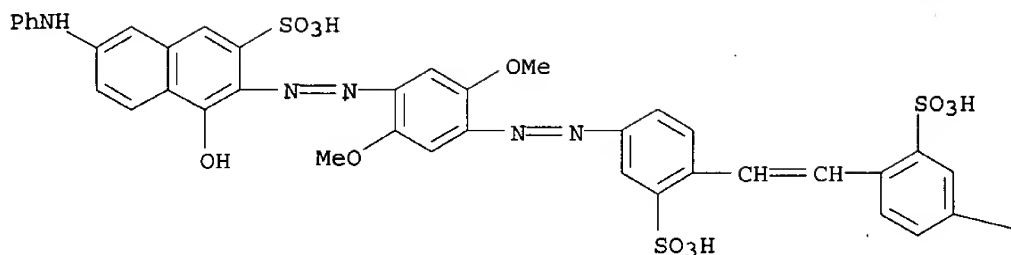
PAGE 1-B



RN 94079-87-5 CAPLUS

CN 2-Naphthalenesulfonic acid, 3-[[[2,5-dimethoxy-4-[[4-[2-(4-nitro-2-sulphophenyl)ethenyl]-3-sulphophenyl]azo]phenyl]azo]-4-hydroxy-7-(phenylamino)]-6-sulfo-2-naphthalenyl]ethenyl]benzoic acid (9CI) (CA INDEX NAME)

PAGE 1-A



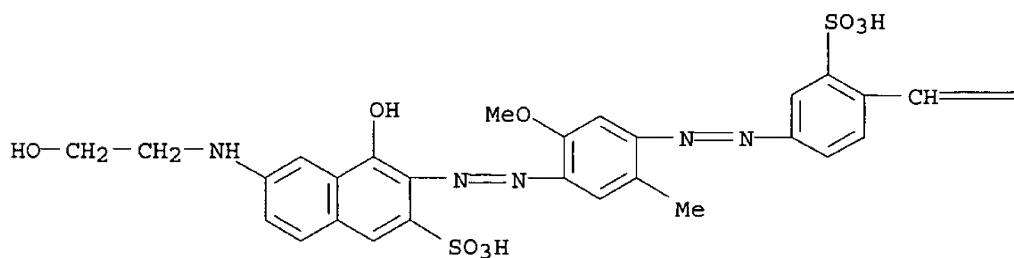
PAGE 1-B

-NO₂

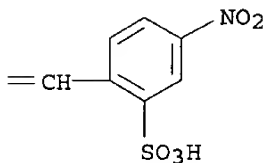
RN 94079-88-6 CAPLUS

CN 2-Naphthalenesulfonic acid, 4-hydroxy-6-[(2-hydroxyethyl)amino]-3-[[2-methoxy-5-methyl-4-[[4-[2-(4-nitro-2-sulfo-phenyl)ethenyl]-3-sulfo-phenyl]azo]phenyl]azo]- (9CI) (CA INDEX NAME)

PAGE 1-A



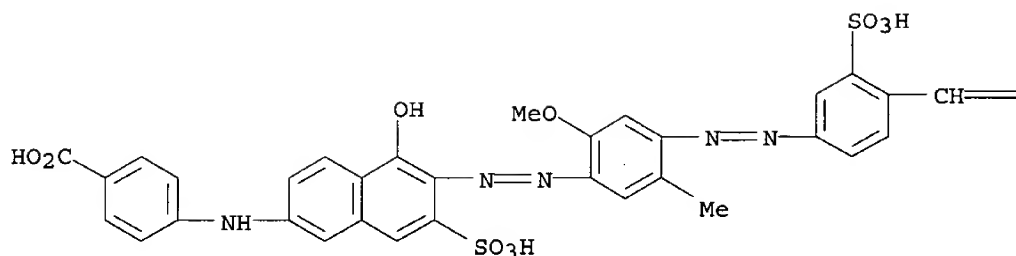
PAGE 1-B



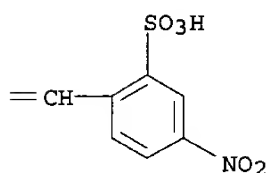
RN 94079-89-7 CAPLUS

CN Benzoic acid, 4-[[5-hydroxy-6-[[2-methoxy-5-methyl-4-[[4-[2-(4-nitro-2-sulfo-phenyl)ethenyl]-3-sulfo-phenyl]azo]phenyl]azo]-7-sulfo-2-naphthalenyl]amino]- (9CI) (CA INDEX NAME)

PAGE 1-A



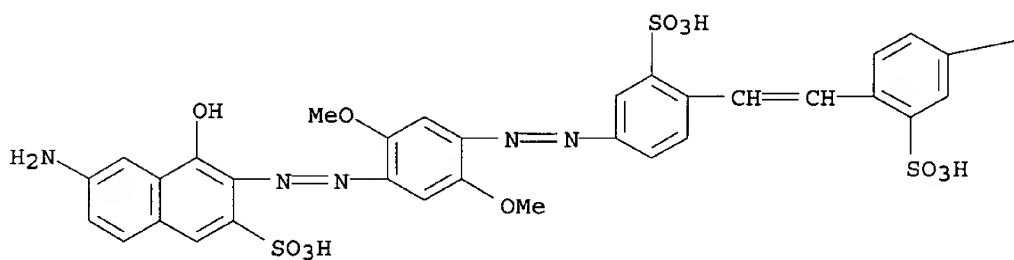
PAGE 1-B



RN 94079-90-0 CAPLUS

CN 2-Naphthalenesulfonic acid, 6-amino-3-[[2,5-dimethoxy-4-[[4-[2-(4-nitro-2-sulphophenyl)ethenyl]-3-sulphophenyl]azo]phenyl]azo]-4-hydroxy- (9CI) (CA INDEX NAME)

PAGE 1-A

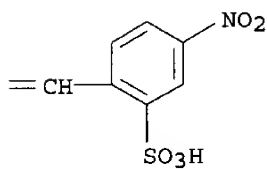
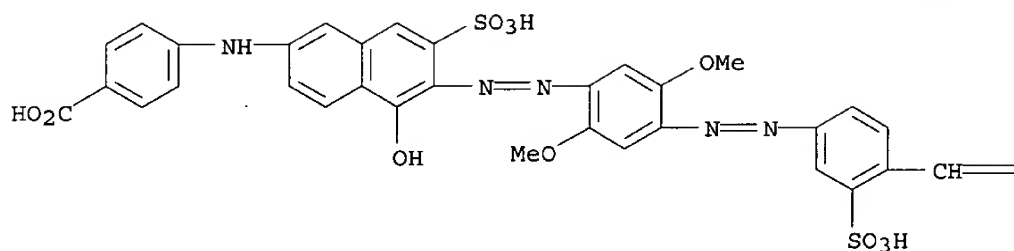


PAGE 1-B



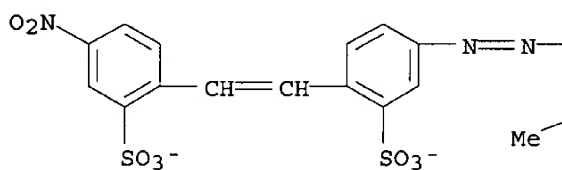
RN 94079-91-1 CAPLUS

CN Benzoic acid, 4-[[6-[[2,5-dimethoxy-4-[[4-[2-(4-nitro-2-sulphophenyl)ethenyl]-3-sulphophenyl]azo]phenyl]azo]-5-hydroxy-7-sulfo-2-naphthalenyl]amino]- (9CI) (CA INDEX NAME)

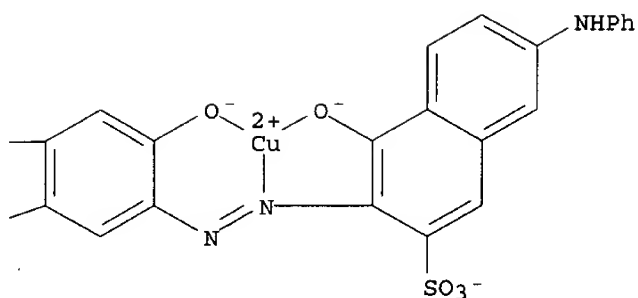


RN 94118-34-0 CAPLUS

CN Cuprate(3-), [4-hydroxy-3-[[2-hydroxy-5-methyl-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]-7-(phenylamino)-2-naphthalenesulfonato(5-)]-, trihydrogen (9CI) (CA INDEX NAME)

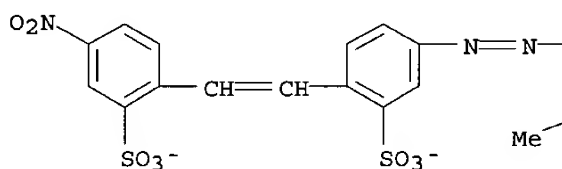
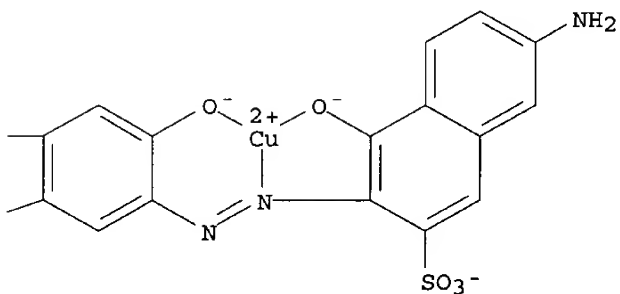


● 3 H⁺



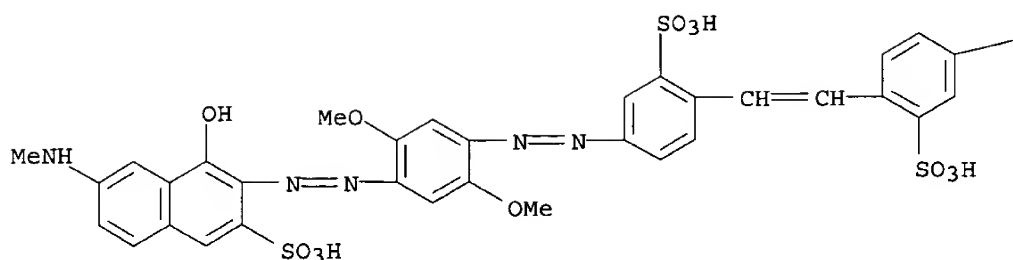
RN 94118-37-3 CAPLUS

CN Cuprate(3-), [7-amino-4-hydroxy-3-[[2-hydroxy-5-methyl-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]-2-naphthalenesulfonato(5-)]-, trihydrogen (9CI) (CA INDEX NAME)

● 3 H⁺

RN 97097-90-0 CAPLUS

CN 2-Naphthalenesulfonic acid, 3-[[2,5-dimethoxy-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]-4-hydroxy-6-(methylamino)- (9CI) (CA INDEX NAME)

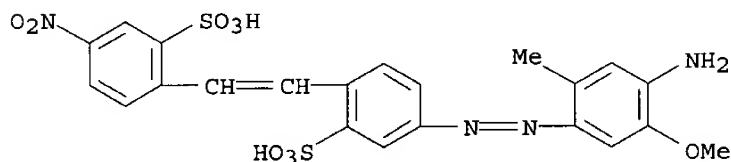
—NO₂

IT 94079-98-8P

RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn., diazotization and coupling with J acid deriv.)

RN 94079-98-8 CAPLUS

CN Benzenesulfonic acid, 5-[(4-amino-5-methoxy-2-methylphenyl)azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]- (9CI) (CA INDEX NAME)



L22 ANSWER 43 OF 86 CAPLUS COPYRIGHT 2003 ACS

AN 1985:205410 CAPLUS

DN 102:205410

TI Crown ether complexes of Direct Yellow 11

IN Cleverdon, Jo Ann

PA Ciba-Geigy Corp., USA

SO U.S., 4 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4502864	A	19850305	US 1984-603863	19840425
	DE 3514297	A1	19851031	DE 1985-3514297	19850419
PRAI	US 1984-603863		19840425		

AB Liq., water-sol. concs. of C. I. Direct Yellow 11 (Paper Yellow 11) (I) that are stable for storage as concs. and in dyeing soln. diln. are prepd. by treating the product of NaOH-catalyzed self-condensation of 4-nitro-2-toluenesulfonic acid with crown ethers such as 18-crown-6 (II) or 15-crown-5. Thus, a mixt. of I 3, H₂O 3, and II 4 parts was heated at 50-80.degree. to give a liq. dye with 300 parts strength and .lambda.max 417 nm. No pptn. was obsd. after storage at 25.degree. for 9 mo or after accelerated aging at 5.degree. for 2 wk.

09567863

IT 96565-35-4 96565-36-5

RL: USES (Uses)

(aq. concs. of, storage-stable)

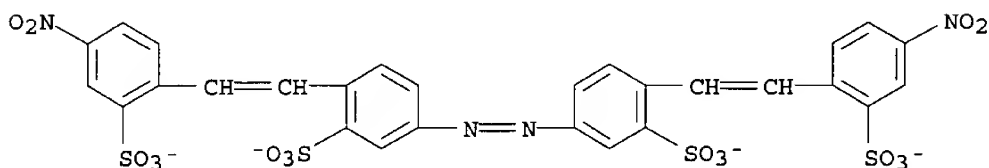
RN 96565-35-4 CAPLUS

CN Sodium(1+), (1,4,7,10,13,16-hexaoxacyclooctadecane-01,04,07,010,013,016)-, (OC-6-11)-, salt with 3,3'-azobis[6-[2-(4-nitro-2-sulfophenyl)ethenyl]benzenesulfonic acid] (4:1) (9CI) (CA INDEX NAME)

CM 1

CRN 96565-34-3

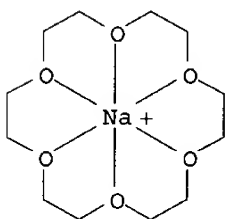
CMF C28 H16 N4 O16 S4



CM 2

CRN 31270-12-9

CMF C12 H24 Na O6



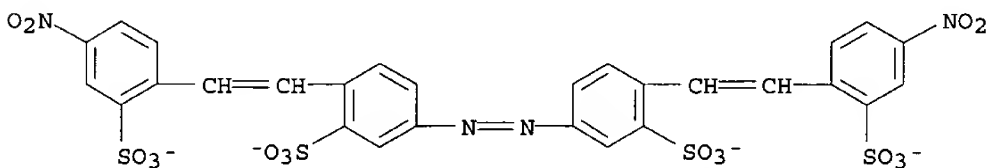
RN ' 96565-36-5 CAPLUS

CN Sodium(1+), (1,4,7,10,13-pentaoxacyclopentadecane-01,04,07,010,013)-, salt with 3,3'-azobis[6-[2-(4-nitro-2-sulfophenyl)ethenyl]benzenesulfonic acid] (4:1) (9CI) (CA INDEX NAME)

CM 1

CRN 96565-34-3

CMF C28 H16 N4 O16 S4

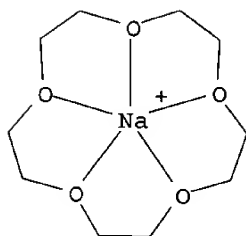


CM 2

CRN 59890-71-0

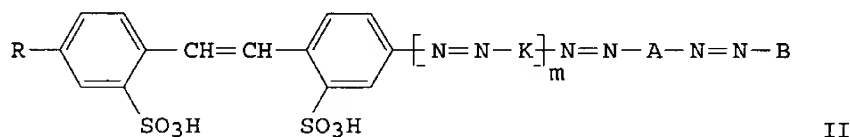
09567863

CMF C10 H20 Na O5
CCI CCS

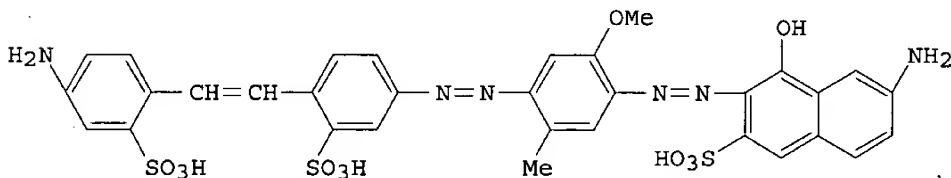


L22 ANSWER 44 OF 86 CAPLUS COPYRIGHT 2003 ACS
AN 1986:69953 CAPLUS
DN 104:69953
TI Colored poly(vinyl alcohol) films
IN Matsuo, Tadashi; Inoe, Junko; Hirasawa, Yutaka
PA Nippon Kayaku Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 11 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 60168743	A2	19850902	JP 1984-24312	19840214
	JP 04061893	B4	19921002		
PRAI	JP 1984-24312		19840214		
GI					



II



III

AB Poly(vinyl alc.) (I) films are colored with a H2O-sol. azo compd. (or its Cu complex) having structure II (as the free acid), where R is NO2, amino, or sulfonaphthotriazolyl, A is a (un)substituted 1,4-phenylene or 1,4-naphthylene group, B is a (un)substituted Ph or naphthyl group, K is a (un)substituted 1,4-phenylene group, and m = 0 or 1. Thus, a I film was drawn 4:1 and dyed with a soln. of 1 part III and 2.5 parts Glauber's salt in 1000 parts H2O at 40.degree. for 5 min.

IT 99964-00-8 99964-01-9 99964-03-1
100011-96-9 100291-30-3 100291-31-4
100291-36-9 100345-74-2 100345-75-3

09567863

100345-76-4 100345-77-5 100345-78-6
100345-79-7 100345-80-0 100345-81-1
100345-82-2 100345-83-3 100345-85-5
100345-86-6 100345-87-7 100345-88-8
100345-89-9 100345-90-2 100345-91-3
100345-92-4 100345-93-5 100345-94-6
100345-95-7 100345-96-8 100345-97-9
100345-98-0 100346-02-9 100346-03-0
100346-04-1 100346-05-2 100346-06-3
100346-07-4 100346-10-9 100346-11-0
100346-12-1 100346-13-2 100361-13-5
100361-15-7

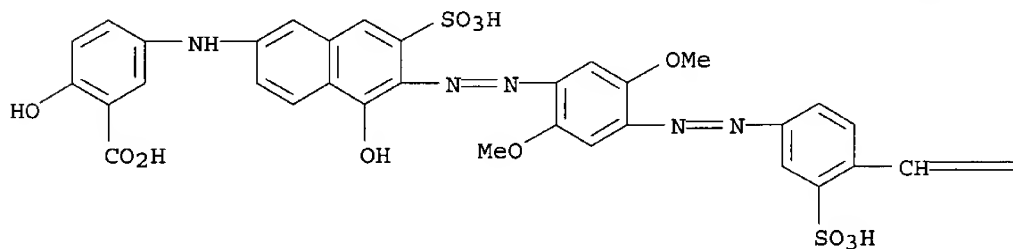
RL: USES (Uses)

(poly(vinyl alc.) film dyed with)

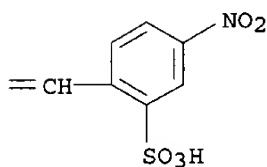
RN 99964-00-8 CAPLUS

CN Benzoic acid, 5-[[6-[[2,5-dimethoxy-4-[[4-[2-(4-nitro-2-sulfo-phenyl)ethenyl]-3-sulfo-phenyl]azo]phenyl]azo]-5-hydroxy-7-sulfo-2-naphthalenyl]amino]-2-hydroxy- (9CI) (CA INDEX NAME)

PAGE 1-A

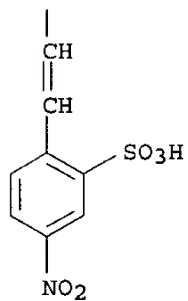
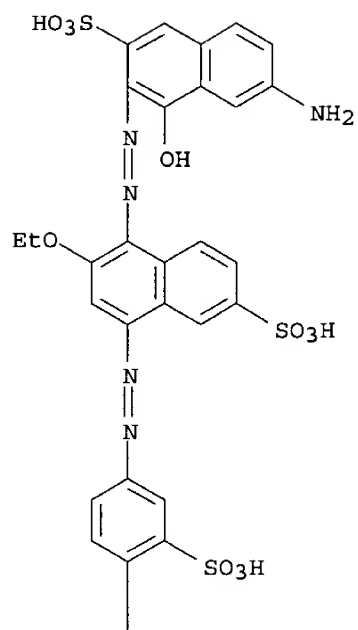


PAGE 1-B

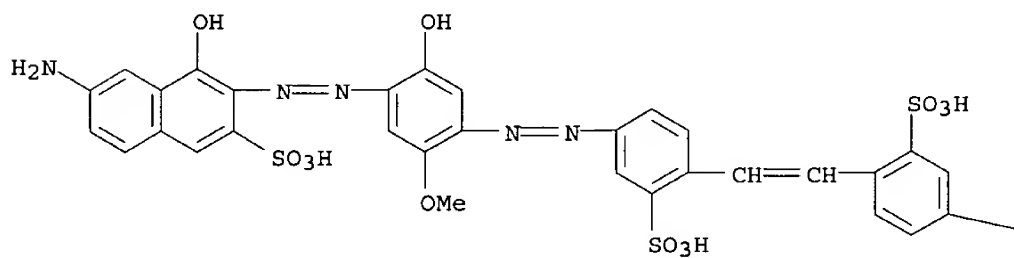


RN 99964-01-9 CAPLUS

CN 2-Naphthalenesulfonic acid, 6-amino-3-[[2-ethoxy-4-[[4-[2-(4-nitro-2-sulfo-phenyl)ethenyl]-3-sulfo-phenyl]azo]-6-sulfo-1-naphthalenyl]azo]-4-hydroxy- (9CI) (CA INDEX NAME)



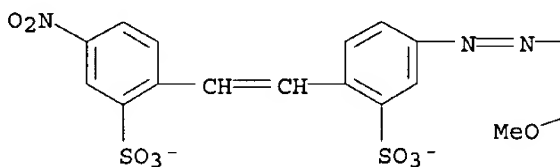
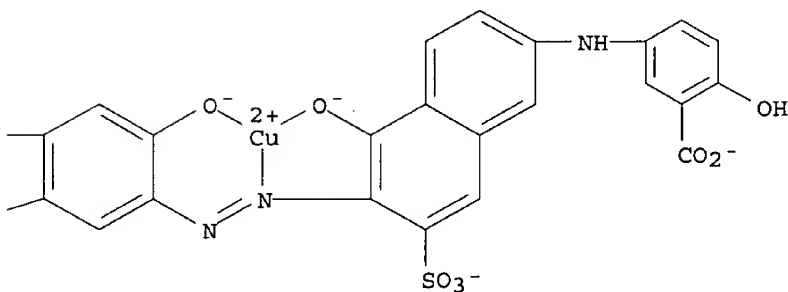
RN	99964-03-1	CAPLUS
CN	2-Naphthalenesulfonic acid, 6-amino-4-hydroxy-3-[[[2-hydroxy-5-methoxy-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]-(9CI) (CA INDEX NAME)	



—NO₂

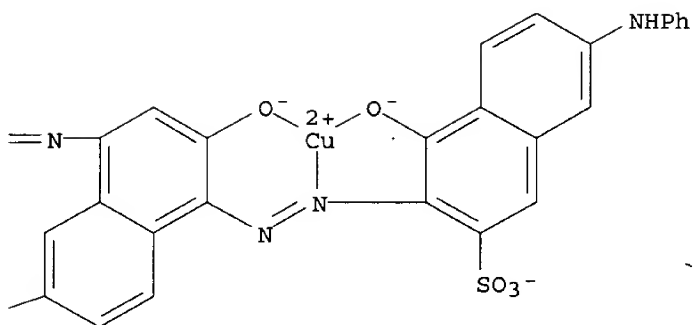
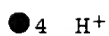
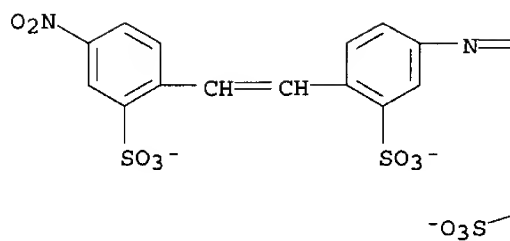
RN 100011-96-9 CAPLUS

CN Cuprate(4-), [2-hydroxy-5-[[5-hydroxy-6-[[2-hydroxy-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]-5-methoxyphenyl]azo]-7-sulfo-2-naphthalenyl]amino]benzoato(6-)]-, tetrahydrogen (9CI) (CA INDEX NAME)

● 4 H⁺

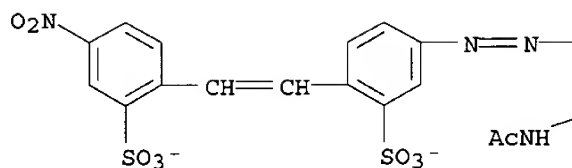
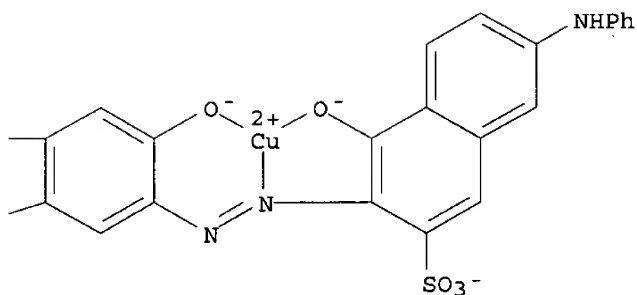
RN 100291-30-3 CAPLUS

CN Cuprate(4-), [4-hydroxy-3-[[2-hydroxy-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]-6-sulfo-1-naphthalenyl]azo]-7-(phenylamino)-2-naphthalenesulfonato(6-)]-, tetrahydrogen (9CI) (CA INDEX NAME)

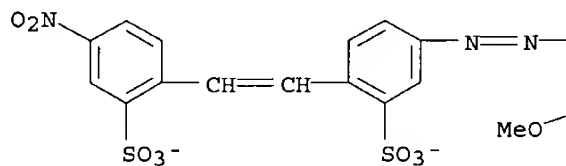


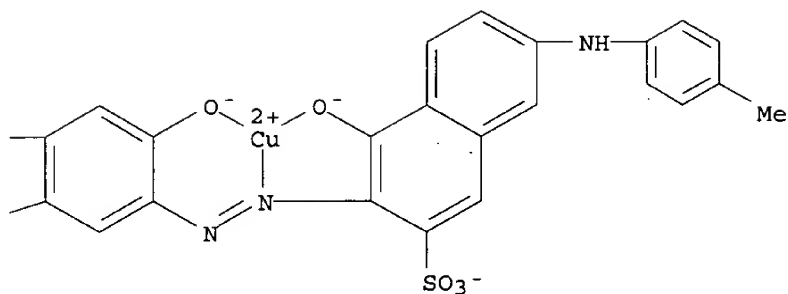
RN 100291-31-4 CAPLUS

CN Cuprate(3-), [3-[[5-(acetylamino)-2-hydroxy-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]-4-hydroxy-7-(phenylamino)-2-naphthalenesulfonato(5-)]-, trihydrogen (9CI) (CA INDEX NAME)

● 3 H⁺

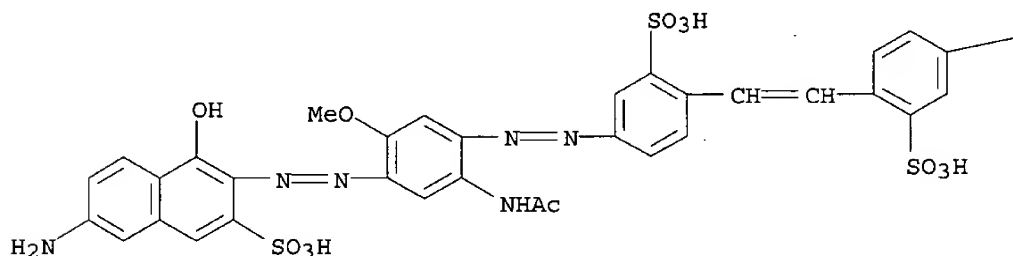
RN 100291-36-9 CAPLUS
 CN Cuprate(3-), [4-hydroxy-3-[[2-hydroxy-5-methoxy-4-[[4-[2-(4-nitro-3-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]-7-[(4-methylphenyl)amino]-2-naphthalenesulfonato(5-)]-, trihydrogen (9CI) (CA INDEX NAME)

● 3 H⁺



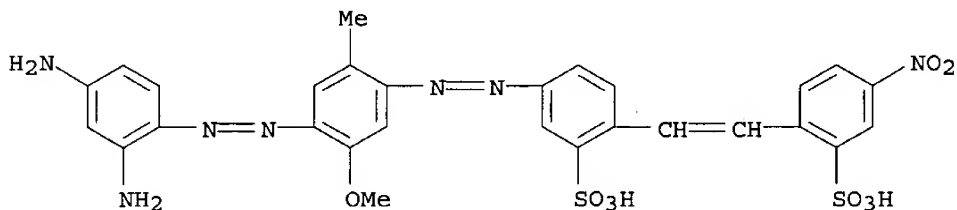
RN 100345-74-2 CAPLUS

CN 2-Naphthalenesulfonic acid, 3-[[5-(acetamino)-2-methoxy-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]-7-amino-4-hydroxy- (9CI) (CA INDEX NAME)

—NO₂

RN 100345-75-3 CAPLUS

CN Benzenesulfonic acid, 5-[[4-[(2,4-diaminophenyl)azo]-5-methoxy-2-methylphenyl]azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]- (9CI) (CA INDEX NAME)



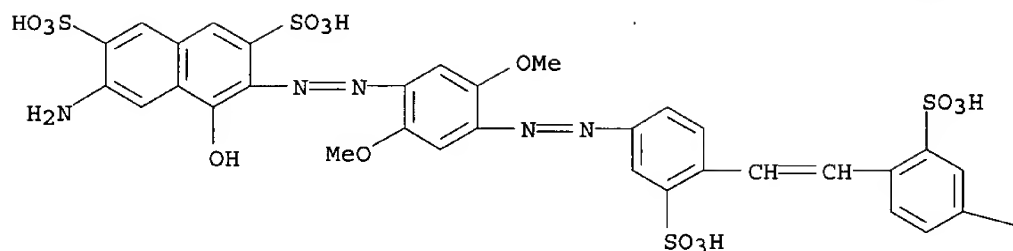
RN 100345-76-4 CAPLUS

CN 2,7-Naphthalenedisulfonic acid, 6-amino-3-[[2,5-dimethoxy-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]-4-hydroxy-

09567863

(9CI) (CA INDEX NAME)

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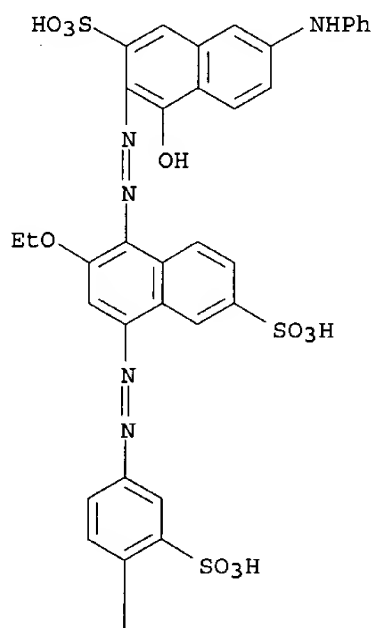


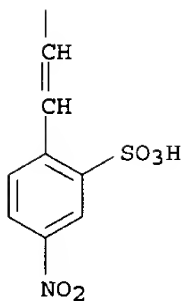
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NO₂

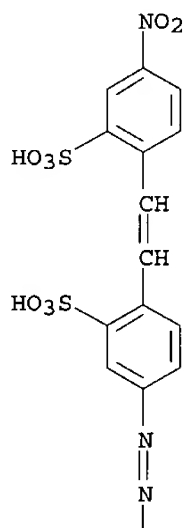
RN 100345-77-5 CAPLUS
CN 2-Naphthalenesulfonic acid, 3-[[[2-ethoxy-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]-6-sulfo-1-naphthalenyl]azo]-4-hydroxy-7-(phenylamino)- (9CI) (CA INDEX NAME)

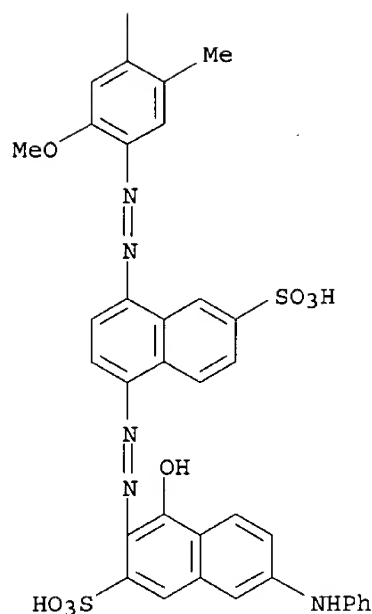
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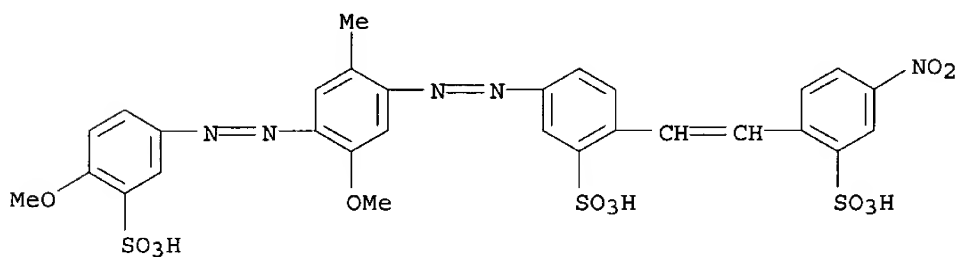
RN 100345-78-6 CAPLUS
 CN 2-Naphthalenesulfonic acid, 4-hydroxy-3-[[4-[[2-methoxy-5-methyl-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]-6-sulfo-1-naphthalenyl]azo]-7-(phenylamino)- (9CI) (CA INDEX NAME)





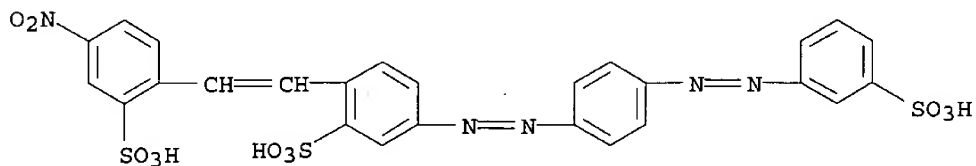
RN 100345-79-7 CAPLUS

CN Benzenesulfonic acid, 5-[[5-methoxy-4-[(4-methoxy-3-sulphophenyl)azo]-2-methylphenyl]azo]-2-[2-(4-nitro-2-sulphophenyl)ethenyl]- (9CI) (CA INDEX NAME)



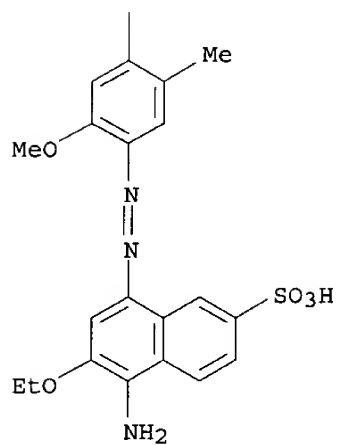
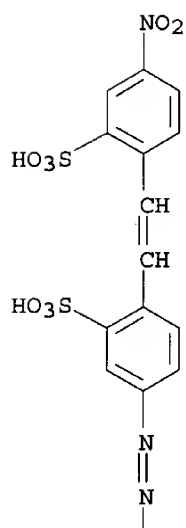
RN 100345-80-0 CAPLUS

CN Benzenesulfonic acid, 2-[2-(4-nitro-2-sulphophenyl)ethenyl]-5-[[4-[(3-sulphophenyl)azo]phenyl]azo]- (9CI) (CA INDEX NAME)

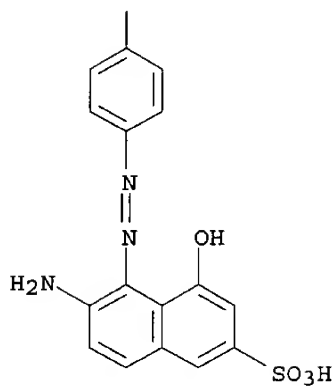
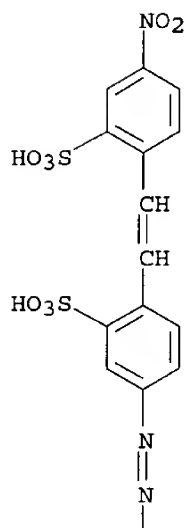


RN 100345-81-1 CAPLUS

CN 2-Naphthalenesulfonic acid, 5-amino-6-ethoxy-8-[[2-methoxy-5-methyl-4-[[2-(4-nitro-2-sulphophenyl)ethenyl]-3-sulphophenyl]azo]phenyl]azo]- (9CI) (CA INDEX NAME)

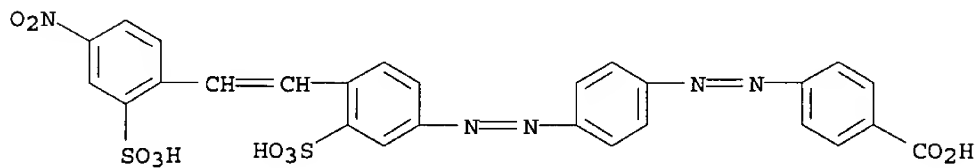


RN 100345-82-2 CAPLUS
 CN 2-Naphthalenesulfonic acid, 6-amino-4-hydroxy-5-[[4-[[4-[2-(4-nitro-2-sulphophenyl)ethenyl]-3-sulphophenyl]azo]phenyl]azo]- (9CI) (CA INDEX NAME)



RN 100345-83-3 CAPLUS

CN Benzoic acid, 4-[[[4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]- (9CI) (CA INDEX NAME)



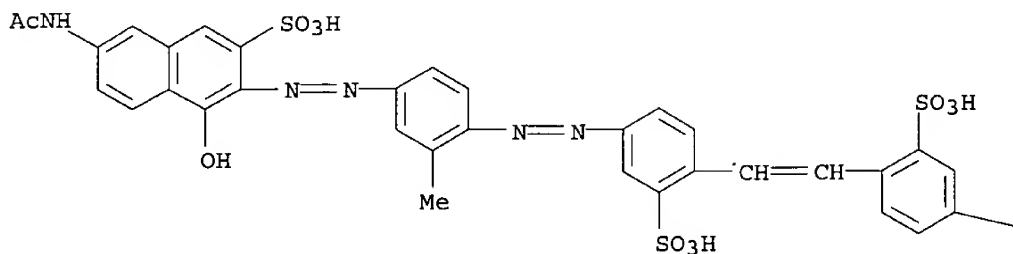
RN 100345-85-5 CAPLUS

CN 2-Naphthalenesulfonic acid, 7-(acetylamino)-4-hydroxy-3-[[3-methyl-4-[[4-[[4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]benzoic acid

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[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo] - (9CI)
(CA INDEX NAME)

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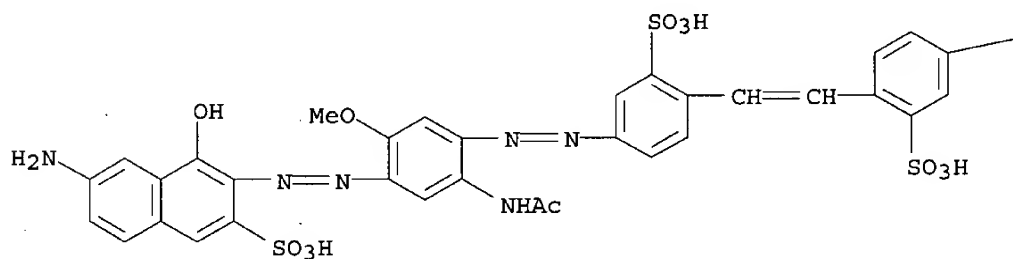
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—NO₂

RN 100345-86-6 CAPLUS

CN 2-Naphthalenesulfonic acid, 3-[[5-(acetylamino)-2-methoxy-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]-6-amino-4-hydroxy- (9CI) (CA INDEX NAME)

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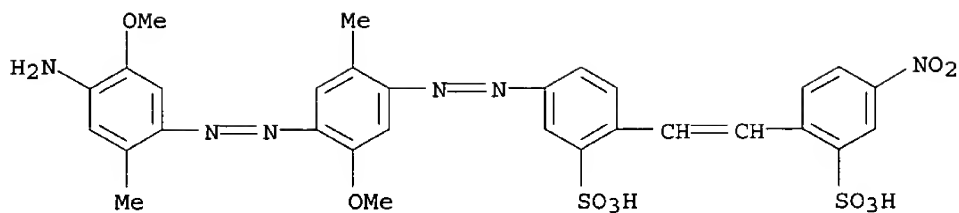
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—NO₂

RN 100345-87-7 CAPLUS

CN Benzenesulfonic acid, 5-[[4-[[4-amino-5-methoxy-2-methylphenyl]azo]-5-methoxy-2-methylphenyl]azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]- (9CI)
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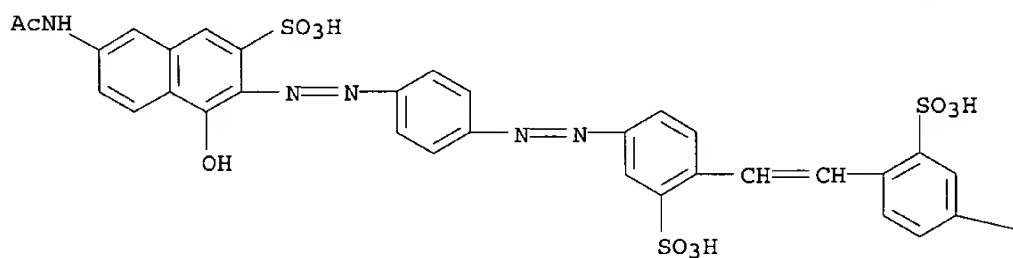
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RN 100345-88-8 CAPLUS

CN 2-Naphthalenesulfonic acid, 7-(acetylamino)-4-hydroxy-3-[[4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]- (9CI) (CA INDEX NAME)

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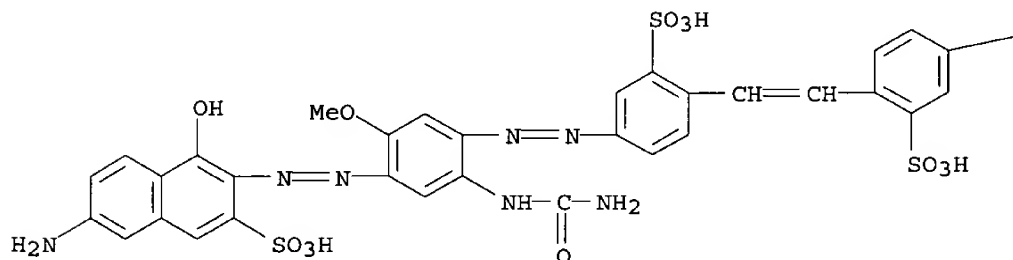
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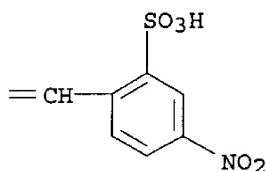
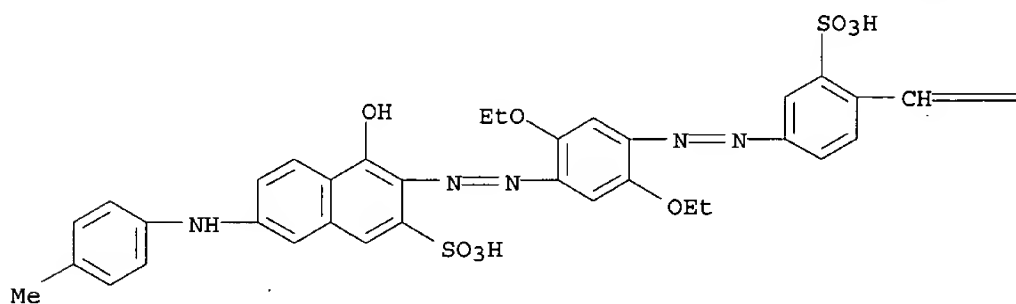
CN 2-Naphthalenesulfonic acid, 7-amino-3-[[5-[(aminocarbonyl)amino]-2-methoxy-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]-4-hydroxy- (9CI) (CA INDEX NAME)

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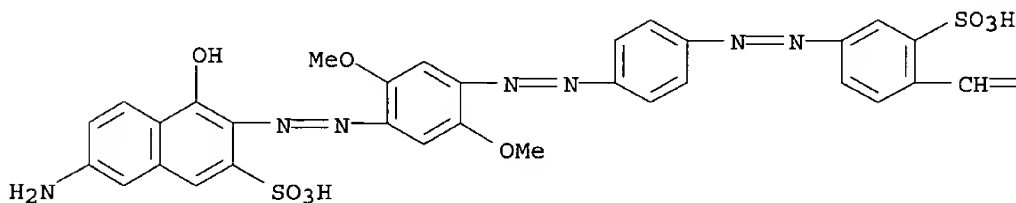


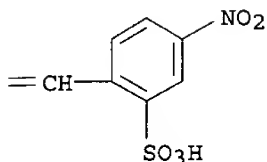
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RN 100345-90-2 CAPLUS
 CN 2-Naphthalenesulfonic acid, 3-[[2,5-diethoxy-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]-4-hydroxy-7-[(4-methylphenyl)amino]- (9CI) (CA INDEX NAME)



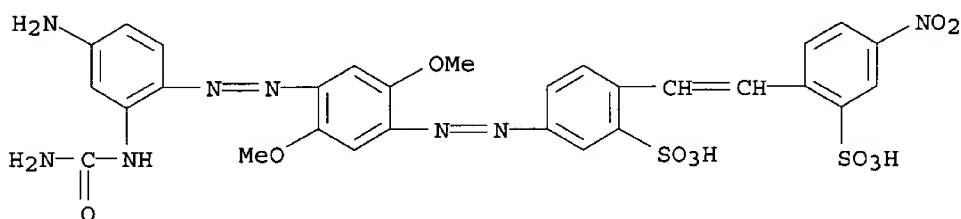
RN 100345-91-3 CAPLUS
 CN 2-Naphthalenesulfonic acid, 7-amino-3-[[2,5-dimethoxy-4-[[4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]phenyl]azo]-4-hydroxy- (9CI) (CA INDEX NAME)





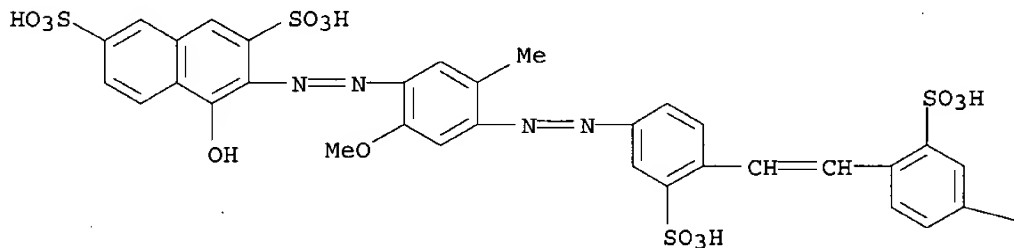
RN 100345-92-4 CAPLUS

CN Benzenesulfonic acid, 5-[[4-[[4-amino-2-[(aminocarbonyl)amino]phenyl]azo]-2,5-dimethoxyphenyl]azo]-2-[2-(4-nitro-2-sulfo-phenyl)ethenyl]- (9CI) (CA INDEX NAME)



RN 100345-93-5 CAPLUS

CN 2,7-Naphthalenedisulfonic acid, 4-hydroxy-3-[[2-methoxy-5-methyl-4-[[4-[2-(4-nitro-2-sulfo-phenyl)ethenyl]-3-sulfo-phenyl]azo]phenyl]azo]- (9CI) (CA INDEX NAME)



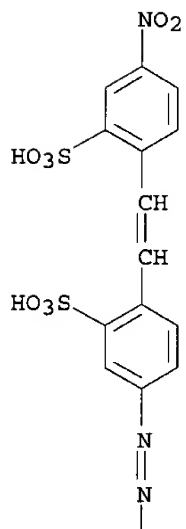
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CN 2-Naphthalenesulfonic acid, 5-amino-8-[[2-methoxy-5-methyl-4-[[4-[2-(4-nitro-2-sulfo-phenyl)ethenyl]-3-sulfo-phenyl]azo]phenyl]azo]- (9CI) (CA INDEX NAME)

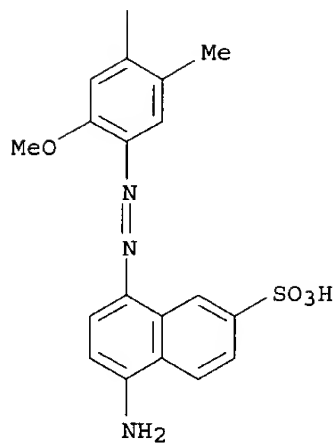
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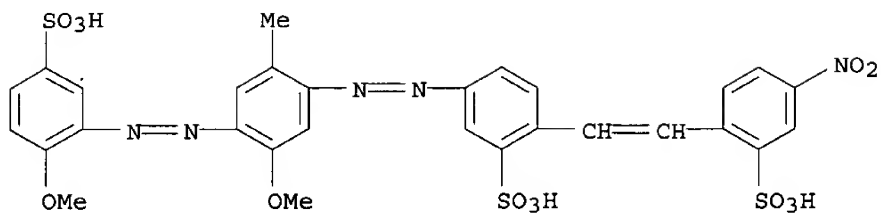


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RN 100345-95-7 CAPLUS
CN Benzenesulfonic acid, 5-[[[5-methoxy-4-[(2-methoxy-5-sulfo-2-nitrophenyl)azo]-2-methylphenyl]azo]-2-nitrophenyl]ethenyl]- (9CI) (CA INDEX NAME)

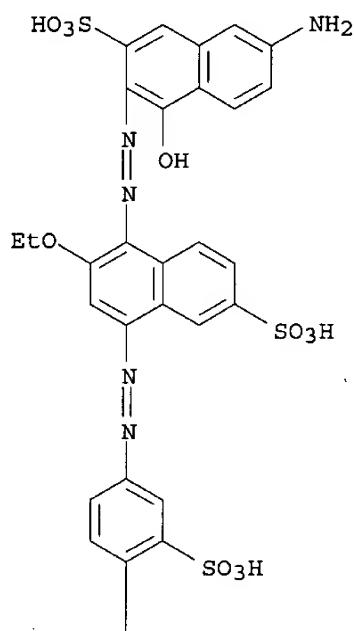
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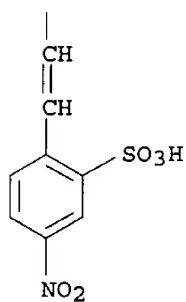
RN 100345-96-8 CAPLUS

CN 2-Naphthalenesulfonic acid, 7-amino-3-[[2-ethoxy-4-[[4-[2-(4-nitro-2-sulphophenyl)ethenyl]-3-sulphophenyl]azo]-6-sulfo-1-naphthalenyl]azo]-4-hydroxy- (9CI) (CA INDEX NAME)

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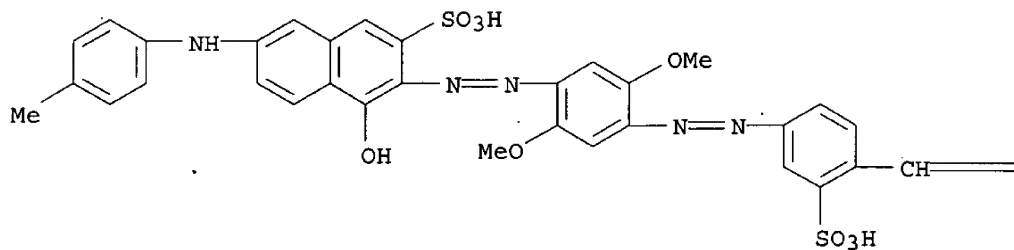
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CN 2-Naphthalenesulfonic acid, 3-[[2,5-dimethoxy-4-[[4-[2-(4-nitro-2-

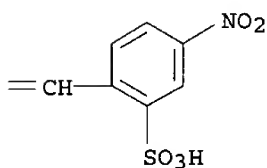
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sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]-4-hydroxy-7-[(4-methylphenyl)amino]- (9CI) (CA INDEX NAME)

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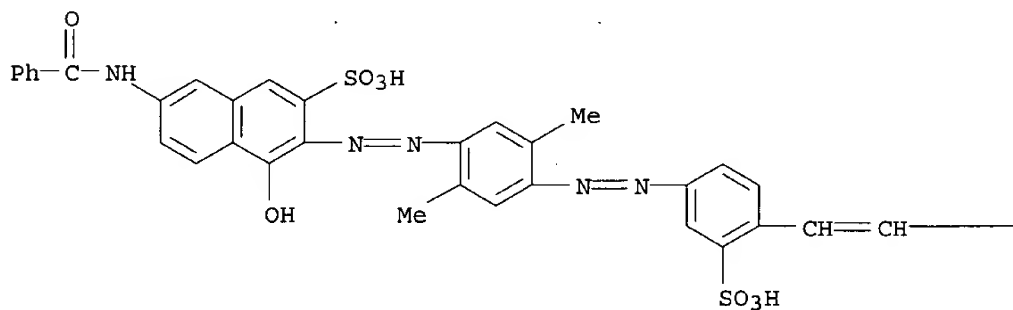
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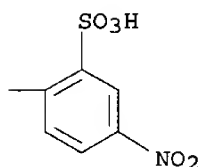


RN 100345-98-0 CAPLUS

CN 2-Naphthalenesulfonic acid, 7-(benzoylamino)-3-[[2,5-dimethyl-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]-4-hydroxy-(9CI) (CA INDEX NAME)

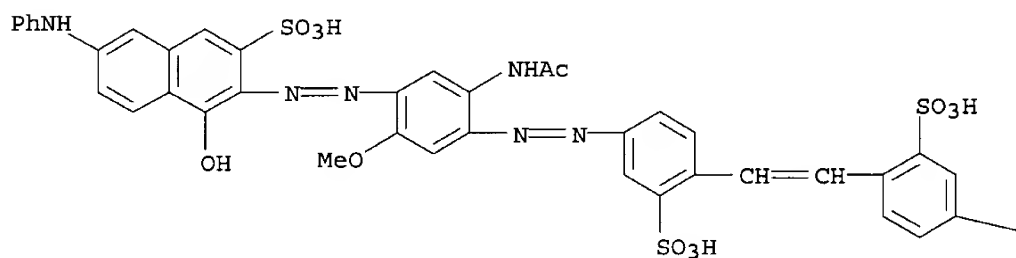
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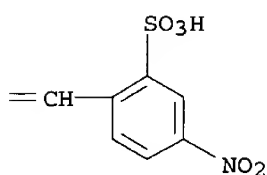
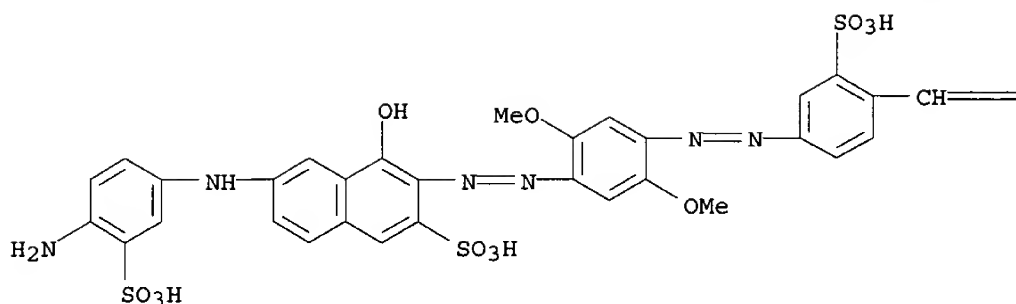
RN 100346-02-9 CAPLUS

CN 2-Naphthalenesulfonic acid, 3-[[5-(acetamino)-2-methoxy-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]-4-hydroxy-7-(phenylamino)- (9CI) (CA INDEX NAME)

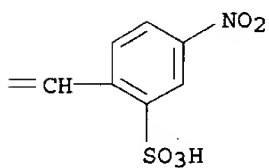
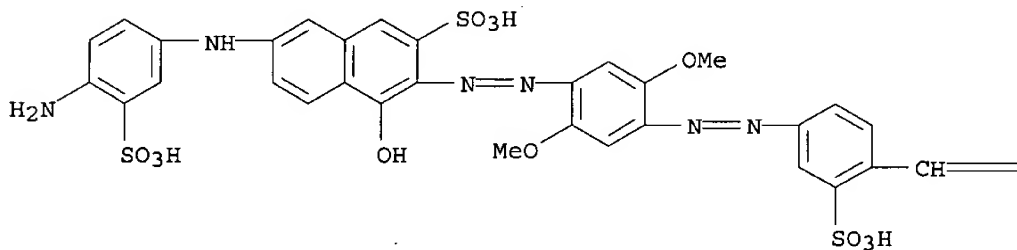


RN 100346-03-0 CAPLUS

CN 2-Naphthalenesulfonic acid, 6-[[4-amino-3-sulfophenyl]amino]-3-[[2,5-dimethoxy-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]-4-hydroxy- (9CI) (CA INDEX NAME)



RN 100346-04-1 CAPLUS
 CN 2-Naphthalenesulfonic acid, 7-[[4-amino-3-sulfophenyl]amino]-3-[[2,5-dimethoxy-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]-4-hydroxy- (9CI) (CA INDEX NAME)

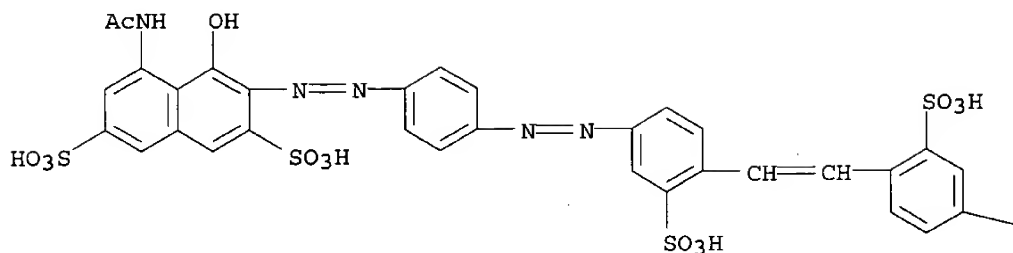


RN 100346-05-2 CAPLUS
 CN 2,7-Naphthalenedisulfonic acid, 5-(acetylamino)-4-hydroxy-3-[[4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]- (9CI) (CA INDEX NAME)

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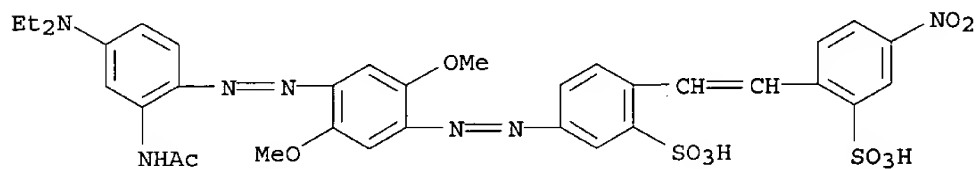


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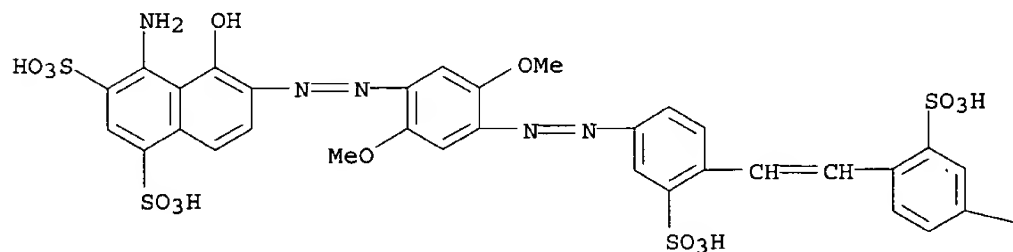
CN Benzenesulfonic acid, 5-[[4-[[2-(acetylamino)-4-(diethylamino)phenyl]azo]-2,5-dimethoxyphenyl]azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]- (9CI) (CA INDEX NAME)



RN 100346-07-4 CAPLUS

CN 1,3-Naphthalenedisulfonic acid, 4-amino-6-[[2,5-dimethoxy-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]-5-hydroxy- (9CI) (CA INDEX NAME)

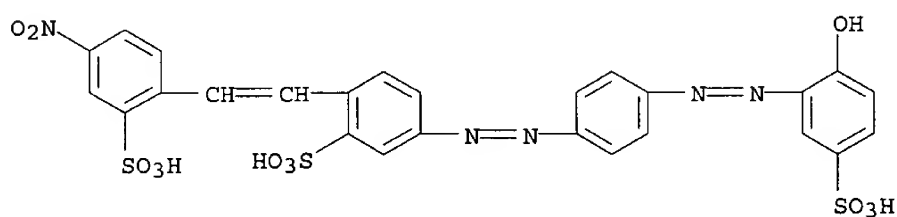
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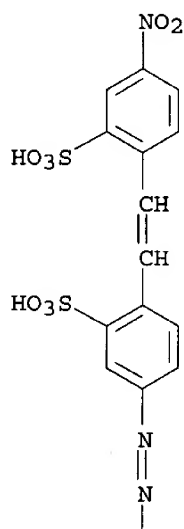
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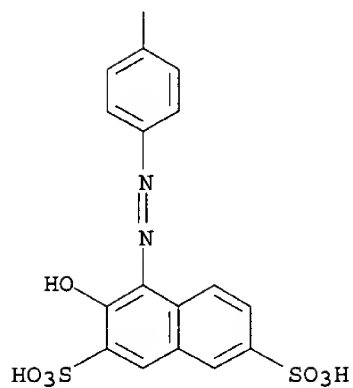
CN Benzenesulfonic acid, 5-[[4-[(2-hydroxy-5-sulfophenyl)azo]phenyl]azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]- (9CI) (CA INDEX NAME)



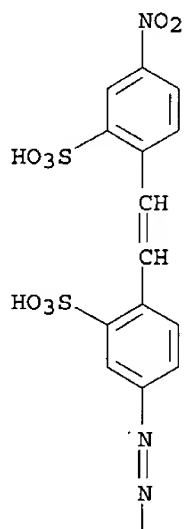
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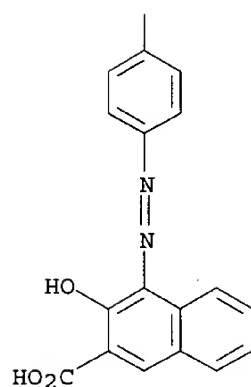
CN 2,7-Naphthalenedisulfonic acid, 3-hydroxy-4-[[4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]- (9CI) (CA INDEX NAME)





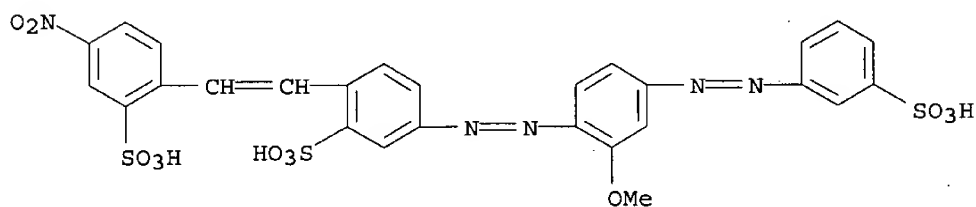
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 CN 2-Naphthalenecarboxylic acid, 3-hydroxy-4-[[4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]- (9CI) (CA INDEX NAME)





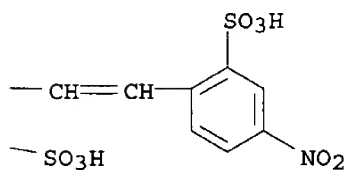
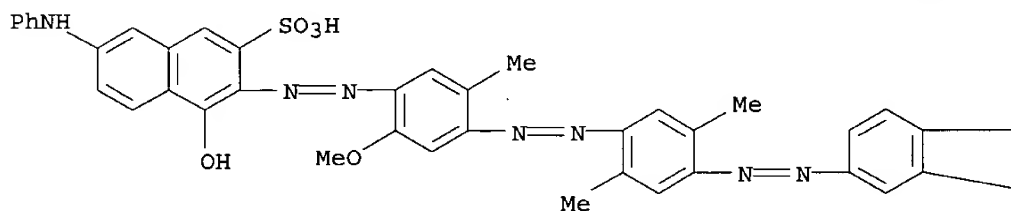
RN 100346-13-2 CAPLUS

CN Benzenesulfonic acid, 5-[[2-methoxy-4-[(3-sulfophenyl)azo]phenyl]azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]- (9CI) (CA INDEX NAME)



RN 100361-13-5 CAPLUS

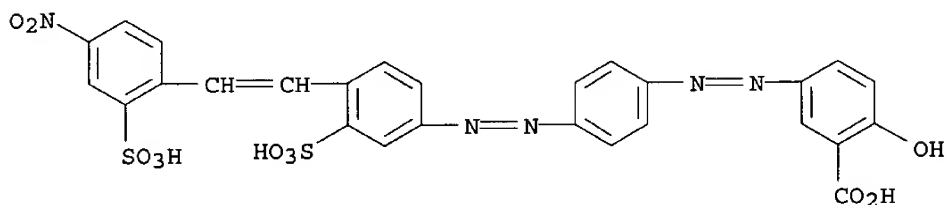
CN 2-Naphthalenesulfonic acid, 3-[[4-[[2,5-dimethyl-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]-2-methoxy-5-methylphenyl]azo]-4-hydroxy-7-(phenylamino)- (9CI) (CA INDEX NAME)



RN 100361-15-7 CAPLUS

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CN Benzoic acid, 2-hydroxy-5-[[4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]- (9CI) (CA INDEX NAME)



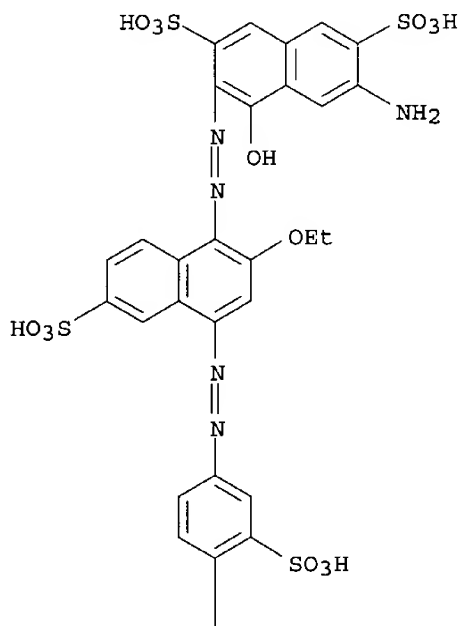
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RL: USES (Uses)

(sapond. ethylene-vinyl acetate copolymer films dyed with)

RN 100346-08-5 CAPLUS

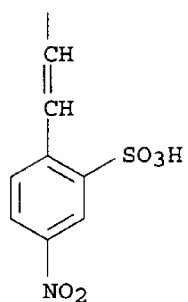
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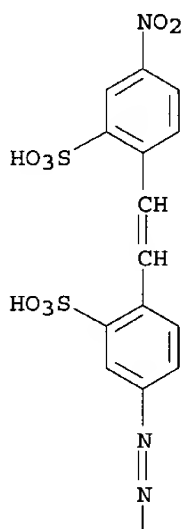
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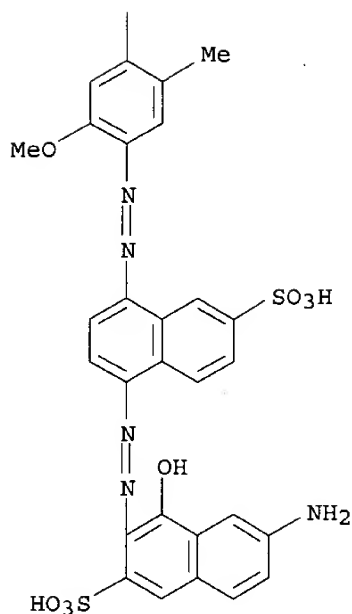
PAGE 2-A



RN 100346-09-6 CAPLUS
CN 2-Naphthalenesulfonic acid, 6-amino-4-hydroxy-3-[[4-[[2-methoxy-5-methyl-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]-6-sulfo-1-naphthalenyl]azo]- (9CI) (CA INDEX NAME)

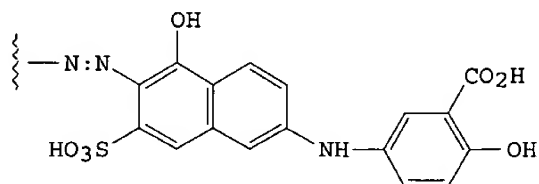
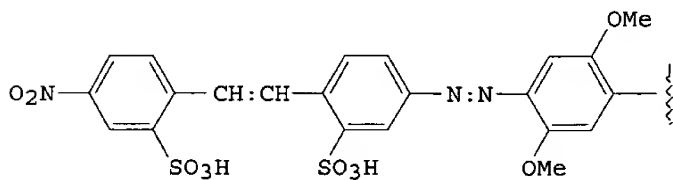
PAGE 1-A





L22 ANSWER 45 OF 86 CAPLUS COPYRIGHT 2003 ACS
 AN 1986:70283 CAPLUS
 DN 104:70283
 TI Water-soluble disazo compounds
 IN Matsuo, Tadashi; Inoue, Junko; Hirasawa, Yutaka
 PA Nippon Kayaku Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 6 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 60156759	A2	19850816	JP 1984-10228	19840125
	JP 04050944	B4	19920817		
PRAI	JP 1984-10228		19840125		
GI					



AB The title compds. are prepd. by diazotizing 4-nitro-4'-aminostilbene-2,2'-disulfonic acid (I), coupling with substituted anilines or substituted aminonaphthalenesulfonic acids to form monoazo compds., diazotizing the monoazo compds., and coupling with substituted hydroxynaphthalenesulfonic acids. Thus, 57.7 parts Na salt of I was diazotized, coupled with 20.9 parts 2,5-dimethoxyaniline to give 77.8 parts monoazo compd., diazotized, coupled with N-(3-carboxy-4-hydroxyphenyl) J acid to give disazo compd. II. A poly(vinyl alc.) film was dyed with II and had λ_{max} 610 nm, and stretched film had good polarization properties.

IT 99964-00-8 99964-01-9 99964-03-1

100011-96-9

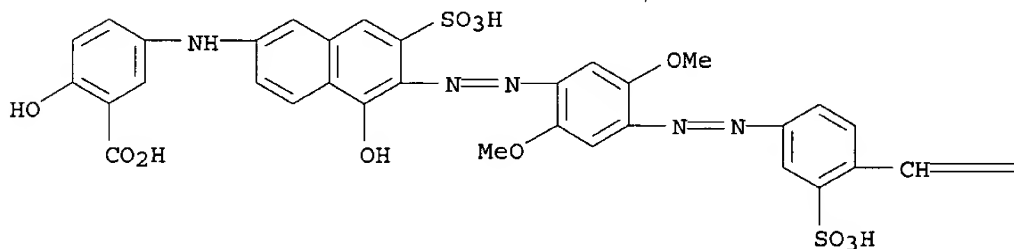
RL: MSC (Miscellaneous)

(dyes, for poly(vinyl alc.) polarization films)

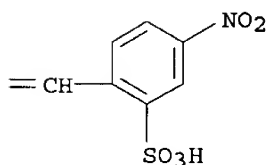
RN 99964-00-8 CAPLUS

CN Benzoic acid, 5-[[6-[[2,5-dimethoxy-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]-5-hydroxy-7-sulfo-2-naphthalenyl]amino]-2-hydroxy- (9CI) (CA INDEX NAME)

PAGE 1-A

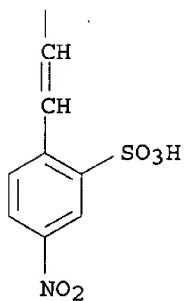
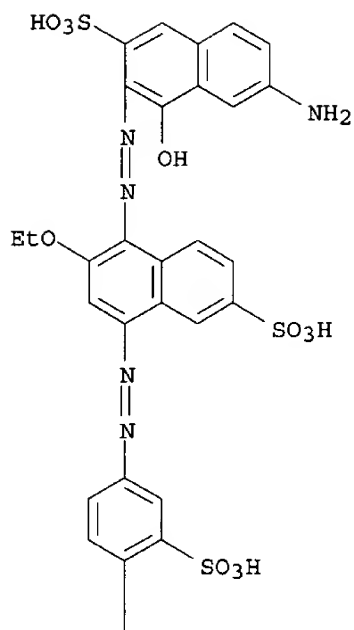


PAGE 1-B



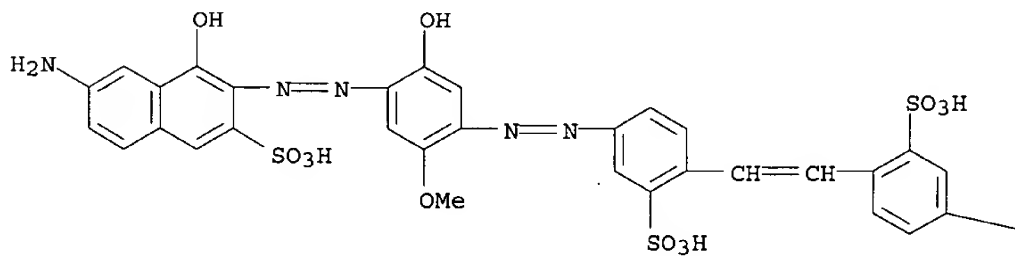
RN 99964-01-9 CAPLUS

CN 2-Naphthalenesulfonic acid, 6-amino-3-[[2-ethoxy-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]-6-sulfo-1-naphthalenyl]azo]-4-hydroxy- (9CI) (CA INDEX NAME)



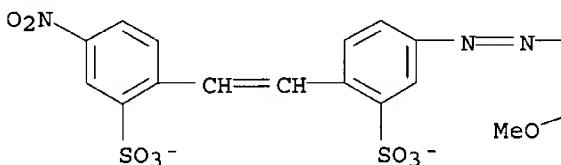
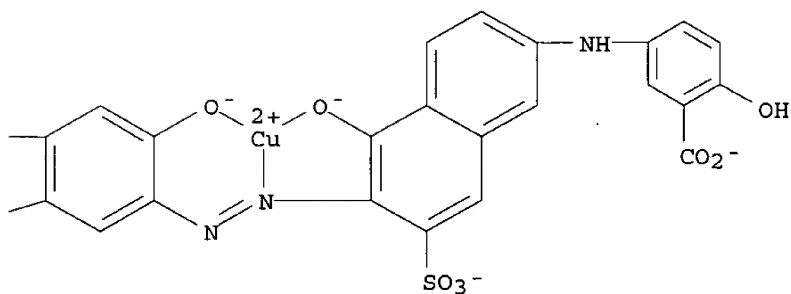
RN 99964-03-1 CAPLUS

CN 2-Naphthalenesulfonic acid, 6-amino-4-hydroxy-3-[[2-hydroxy-5-methoxy-4-[[4-[2-(4-nitro-2-sulfoxyphenyl)ethenyl]-3-sulfoxyphenyl]azo]phenyl]azo]- (9CI) (CA INDEX NAME)



—NO₂

RN 100011-96-9 CAPLUS
 CN Cuprate(4-), [2-hydroxy-5-[[5-hydroxy-6-[[2-hydroxy-4-[[4-[2-(4-nitro-2-sulfo-phenyl)ethenyl]-3-sulfo-phenyl]azo]-5-methoxyphenyl]azo]-7-sulfo-2-naphthalenyl]amino]benzoato(6-)]-, tetrahydrogen (9CI) (CA INDEX NAME)

●4 H⁺

IT 97201-10-0

RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with EDTA disodium)

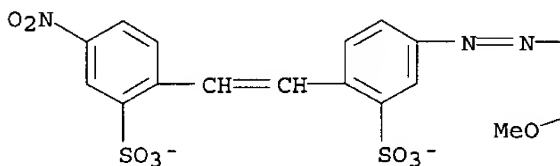
RN 97201-10-0 CAPLUS

CN Cuprate(3-), [6-amino-4-hydroxy-3-[[2-hydroxy-5-methoxy-4-[[4-[2-(4-nitro-

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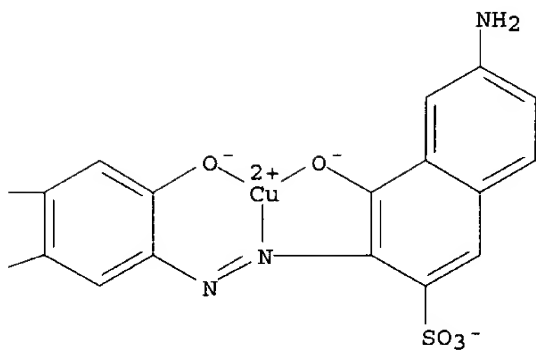
2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]-2-naphthalenesulfonato(5-)]-, trihydrogen (9CI) (CA INDEX NAME)

PAGE 1-A



● 3 H⁺

PAGE 1-B

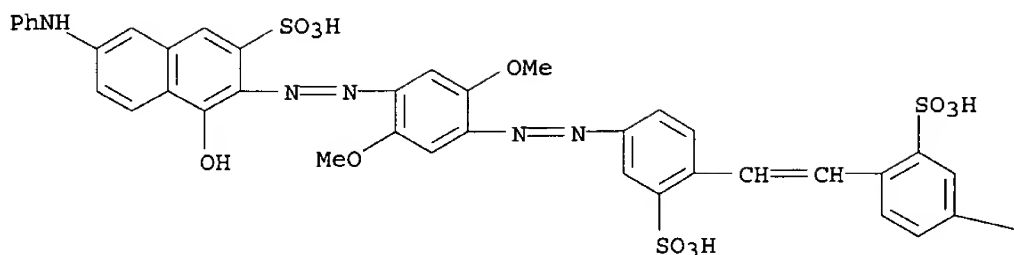


IT 94079-87-5

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with sodium sulfide)

RN 94079-87-5 CAPLUS

CN 2-Naphthalenesulfonic acid, 3-[[2,5-dimethoxy-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]-4-hydroxy-7-(phenylamino)- (9CI) (CA INDEX NAME)

—NO₂

L22 ANSWER 46 OF 86 CAPLUS COPYRIGHT 2003 ACS

AN 1986:131440 CAPLUS

DN 104:131440

TI 1:2 Chromium complex dyes

IN Beffa, Fabio

PA Ciba-Geigy A.-G. , Switz.

SO Eur. Pat. Appl., 47 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 150676	A2	19850807	EP 1984-810644	19841219
	EP 150676	A3	19860319		
	EP 150676	B1	19881012		
	R: CH, DE, FR, GB, LI				
	US 4650859	A	19870317	US 1984-688087	19841231
	JP 60158261	A2	19850819	JP 1985-258	19850107
PRAI	CH 1984-53		19840106		
GI					

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Unsym. 1:2 azomethine or azo-azomethine Cr complexes of general structure I are prep'd., where Z = N or CH; Q = benzene or naphthalene residue with OH or CO₂H ortho to the azo group; Q1 = o-aminophenol residue or (p = 1) amino carboxylic acid residue; Q2 = coupler (when Z = N) or o-hydroxy aldehyde (Z = CH) residue; Z1 = O or, when Z = N, also NR (R = H, C1-4 alkyl); R1 = R2 (R4 = H, Me; n = 0 or 1) or R3 (R5 = H, NO₂, Cl, etc.); and n = 1-6, p = 0 or 1, q = 0 or 1, and M = cation. I are light- and

09567863

wetfast orange or brown to olive dyes for N-contg. materials, esp. leather. Thus, a mixt. of 4,2,6-Me(H₂N)(O₂N)C₆H₂OH, dehydrothio-p-toluidine-7-sulfonic acid .fwdarw. 2-HOC₆H₄CHO, and the 1:1 Cr complex of 1,2,6,4-H₂N(HO)(O₂N)C₁₀H₄SO₃H .fwdarw. 2-Cl₁₀H₇OH in H₂O was heated at 80-85.degree. and pH 7-7.5 (NaOH added) to give II, a fast brown dye for wool, polyamide, and leather. Other I were similarly prepd.

IT 100908-13-2P

RL: PREP (Preparation)

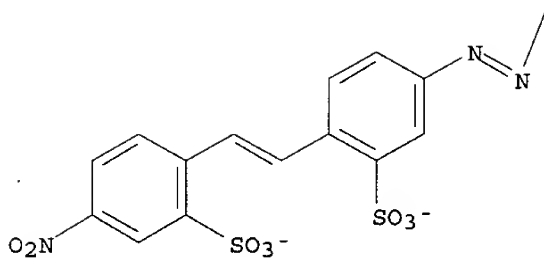
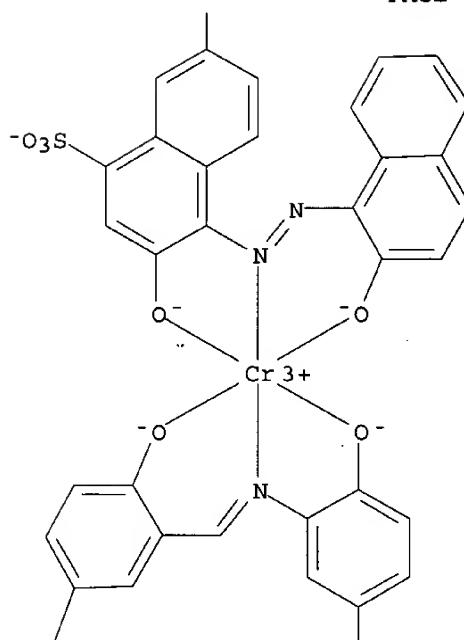
(manuf. of, as brown dye for leather)

RN 100908-13-2 CAPLUS

CN Chromate(4-), [3-hydroxy-4-[(2-hydroxy-1-naphthalenyl)azo]-7-nitro-1-naphthalenesulfonato(3-)] [5-[[4-hydroxy-3-[[2-hydroxy-5-nitrophenyl)imino]methyl]phenyl]azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]benzenesulfonato(4-)]-, tetrasodium (9CI) (CA INDEX NAME)

PAGE 1-A

NO₂

NO₂● 4 Na⁺

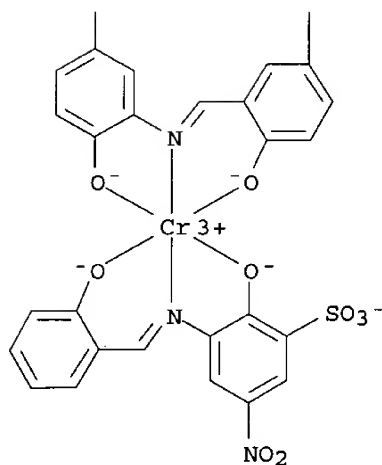
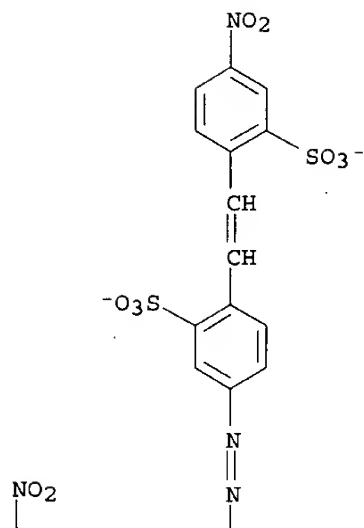
IT 100943-15-5P

RL: PREP (Preparation)

(manuf. of, as yellowish orange dye for leather)

RN 100943-15-5 CAPLUS

CN Chromate(4-), [5-[[4-hydroxy-3-[[2-hydroxy-5-nitrophenyl]imino]methyl]phenyl]azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]benzenesulfonato(4-)] [2-hydroxy-3-[[2-hydroxyphenyl)methylene]amino]-5-nitrobenzenesulfonato(3-)]-, tetrasodium (9CI) (CA INDEX NAME)



● 4 Na⁺

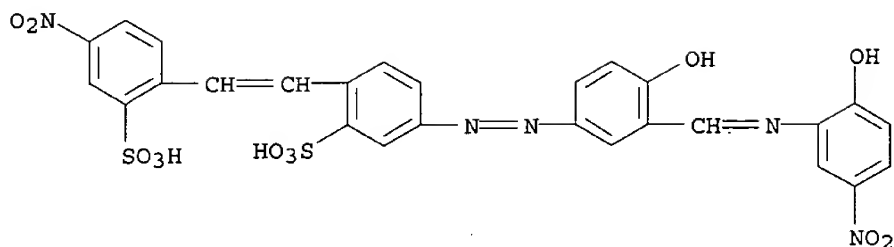
IT 100934-01-8

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with aminophenol deriv., in dye chromium
complex dye manuf.)

RN 100934-01-8 CAPLUS

CN Benzenesulfonic acid, 5-[[4-hydroxy-3-[[2-hydroxy-5-nitrophenyl]imino]methyl]phenyl]azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]-(9CI) (CA INDEX NAME)

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L22 ANSWER 47 OF 86 CAPLUS COPYRIGHT 2003 ACS

AN 1985:466226 CAPLUS

DN 103:66226

TI Study of the toxicity of some types of dyes to aquatic organisms

AU Dolezalova, Ludmila; Solta, Frantisek

CS Vychodoceske Chem. Zavody Synth., Semtin, Czech.

SO Vodni Hospodarstvi: B (1985), 35(2), 49-53

CODEN: VHOBAB; ISSN: 0322-8231

DT Journal

LA Czech

AB Median lethal concns. (48 h) for *Poecilia reticulata*, *Tubifex tubifex*, and *Scenedesmus quadricauda* of 30 com. org. dyes were 0.04-3.5, 0.16-6.95, and 0.04-5.0 g/L, resp. Thus, most of the dyes are not toxic for fish, worms, and algae.

IT 58465-72-8

RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(toxicity of, to *Poecilia reticulata* and *Scenedesmus quadricauda* and *Tubifex tubifex*, water pollution in relation to)

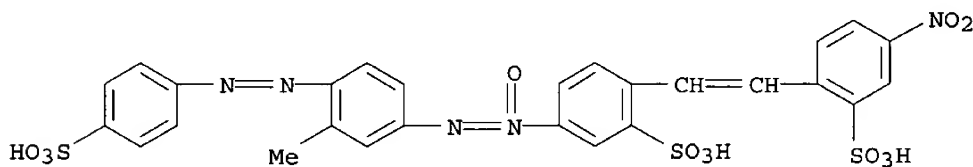
RN 58465-72-8 CAPLUS

CN 1,5-Naphthalenedisulfonic acid, 3-[[4-[[4-[(6-amino-1-hydroxy-3-sulfo-2-naphthalenyl)azo]-6-sulfo-1-naphthalenyl]azo]-1-naphthalenyl]azo]-, tetrasodium salt, mixt. with 5-[[3-methyl-4-[(4-sulfophenyl)azo]phenyl]-NNO-azoxy]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]benzenesulfonic acid trisodium salt and 2-[2-(4-nitro-2-sulfophenyl)ethenyl]-5-[[4-[(4-sulfophenyl)azo]phenyl]-NNO-azoxy]benzenesulfonic acid trisodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 58465-71-7

CMF C27 H21 N5 O12 S3 . 3 Na



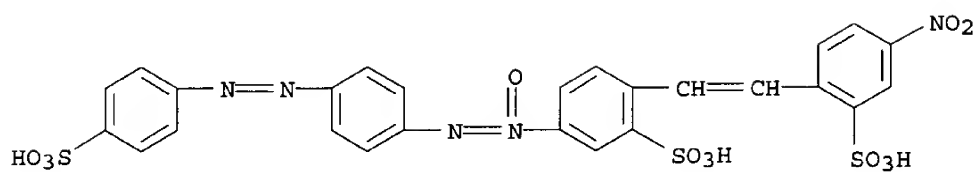
3 Na

CM 2

09567863

CRN 39363-31-0

CMF C26 H19 N5 O12 S3 . 3 Na



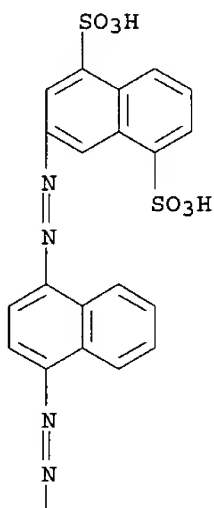
● 3 Na

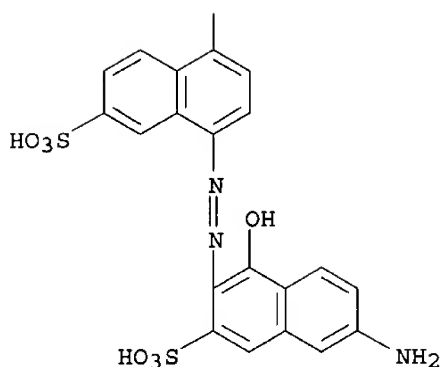
CM 3

CRN 4399-55-7

CMF C40 H27 N7 O13 S4 . 4 Na

PAGE 1-A





●4 Na

L22 ANSWER 48 OF 86 CAPLUS COPYRIGHT 2003 ACS

AN 1985:26357 CAPLUS

DN 102:26357

TI Water-soluble disazo compounds

PA Nippon Kayaku Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 4 pp.

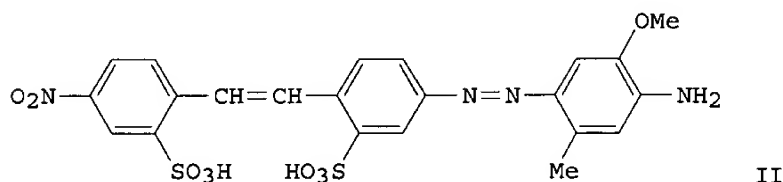
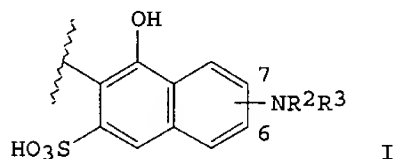
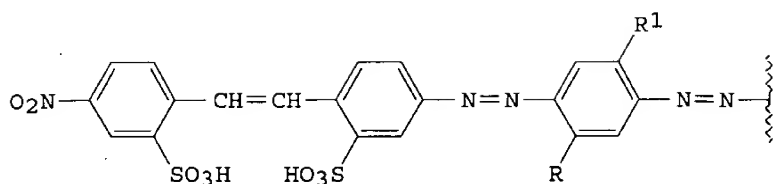
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	----	-----	-----
PI	JP 59145255	A2	19840820	JP 1983-17535	19830207
	JP 02061988	B4	19901221		
PRAI	JP 1983-17535		19830207		
GI					



AB Water-sol. disazo compds. having free-acid form I (R = H, Me, OMe, OEt; R1 = OMe, OEt; R2 = H, Me; R3 = H, Me, C2H4OH, Ph, C6H4CO2H, C6H4SO3H; NR2R3 at 6- or 7-position) and their Cu complex salts are prepd. The compds. are used in light-polarizing films with fastness to sublimation. Thus, di-Na 4-nitro-4'-aminostilbene-2,2'-disulfonate [6634-82-8] was diazotized and coupled with 2-methoxy-5-methylaniline [120-71-8] to give II [94079-98-8] whose diazotization and coupling with N-phenyl J acid [119-40-4] afforded I (R = Me, R1 = OMe, NR2R3 = 6-NHPh) [94079-97-7].

IT 94079-85-3 94079-86-4 94079-87-5
 94079-88-6 94079-89-7 94079-90-0
 94079-91-1 94079-92-2 94079-93-3
 94079-94-4 94079-95-5 94079-96-6
 94079-97-7 94118-34-0 94118-35-1
 94118-36-2 94118-37-3

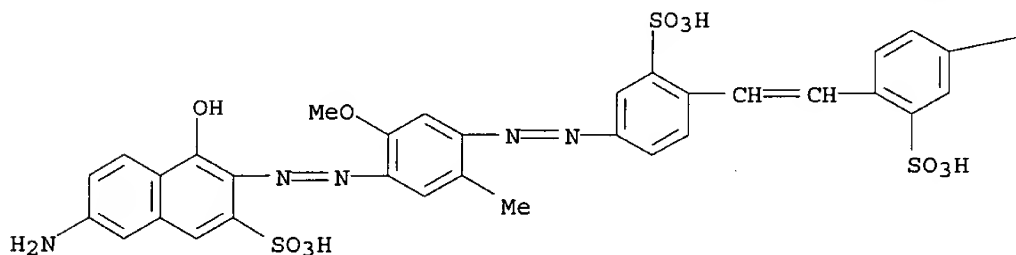
RL: MSC (Miscellaneous)

(dyes, dichroic, for light-polarizing films)

RN 94079-85-3 CAPLUS

CN 2-Naphthalenesulfonic acid, 7-amino-4-hydroxy-3-[[2-methoxy-5-methyl-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]- (9CI)
 (CA INDEX NAME)

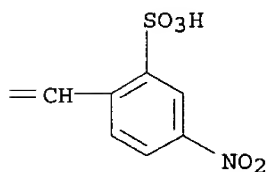
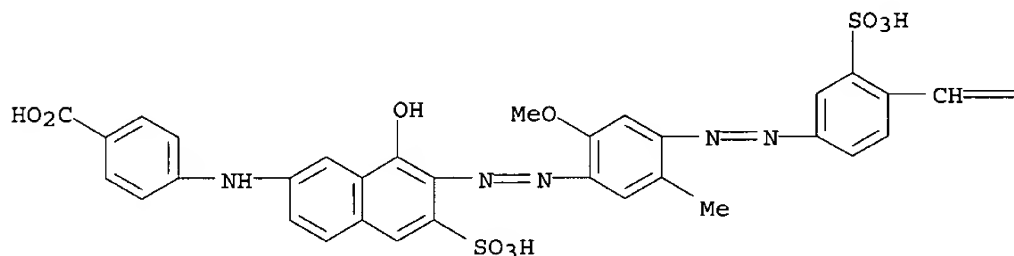
PAGE 1-A



—NO₂

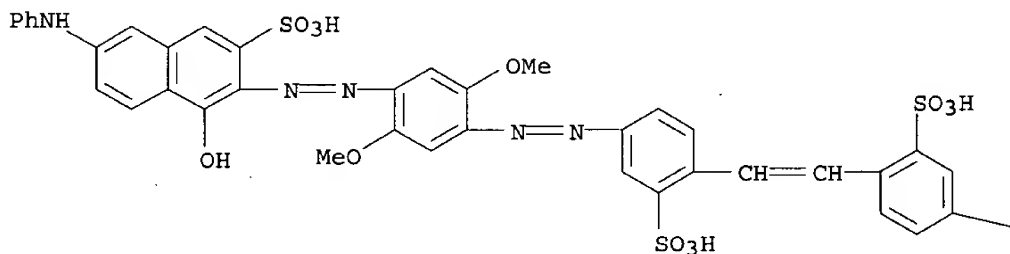
RN 94079-86-4 CAPLUS

CN Benzoic acid, 4-[[8-hydroxy-7-[[2-methoxy-5-methyl-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]-6-sulfo-2-naphthalenyl]amino]- (9CI) (CA INDEX NAME)



RN 94079-87-5 CAPLUS

CN 2-Naphthalenesulfonic acid, 3-[[2,5-dimethoxy-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]-4-hydroxy-7-(phenylamino)- (9CI) (CA INDEX NAME)

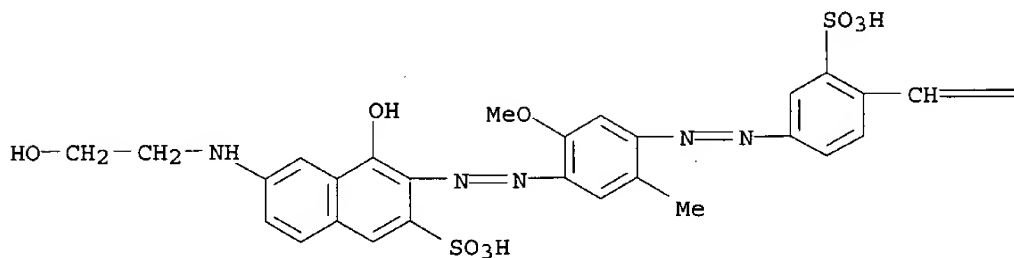


—NO₂

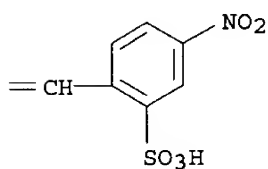
RN 94079-88-6 CAPLUS

CN 2-Naphthalenesulfonic acid, 4-hydroxy-6-[(2-hydroxyethyl)amino]-3-[[2-methoxy-5-methyl-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]- (9CI) (CA INDEX NAME)

PAGE 1-A



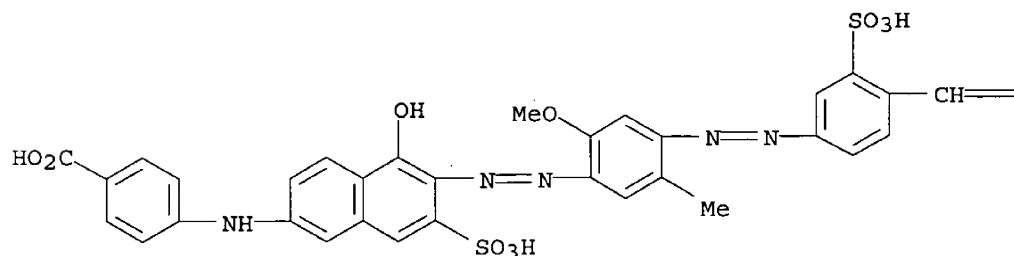
PAGE 1-B

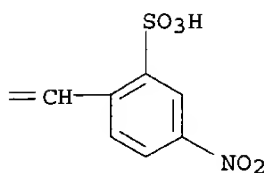


RN 94079-89-7 CAPLUS

CN Benzoic acid, 4-[[5-hydroxy-6-[[2-methoxy-5-methyl-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]-7-sulfo-2-naphthalenyl]amino]- (9CI) (CA INDEX NAME)

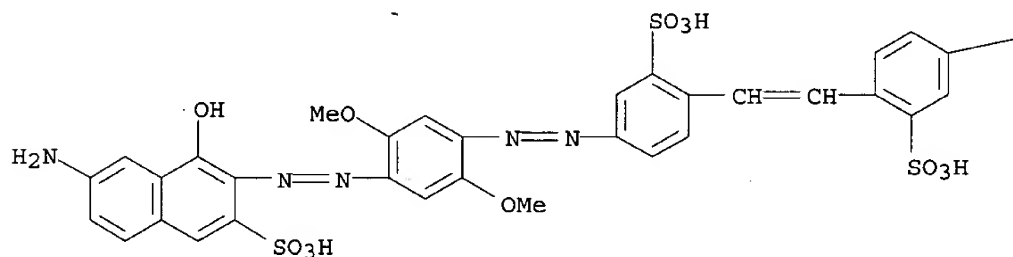
PAGE 1-A





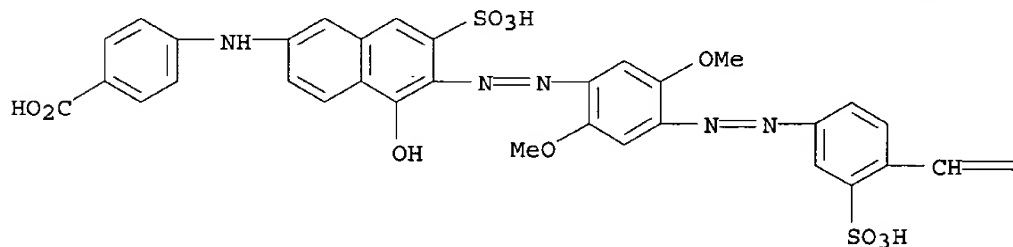
RN 94079-90-0 CAPLUS

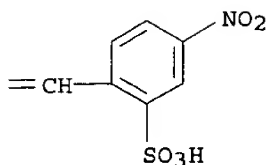
CN 2-Naphthalenesulfonic acid, 6-amino-3-[[2,5-dimethoxy-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]-4-hydroxy- (9CI) (CA INDEX NAME)

—NO₂

RN 94079-91-1 CAPLUS

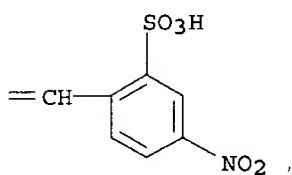
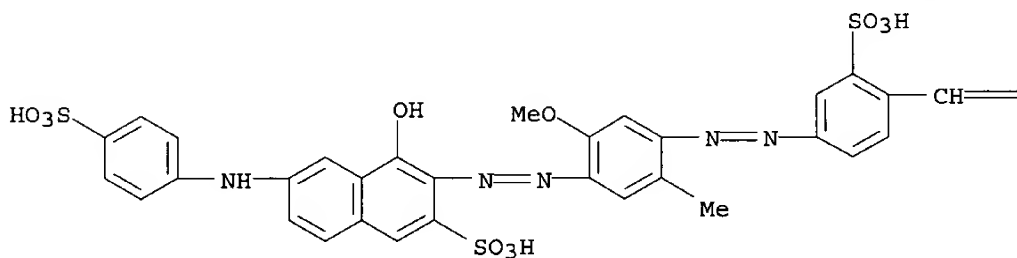
CN Benzoic acid, 4-[[6-[[2,5-dimethoxy-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]-5-hydroxy-7-sulfo-2-naphthalenyl]amino]- (9CI) (CA INDEX NAME)





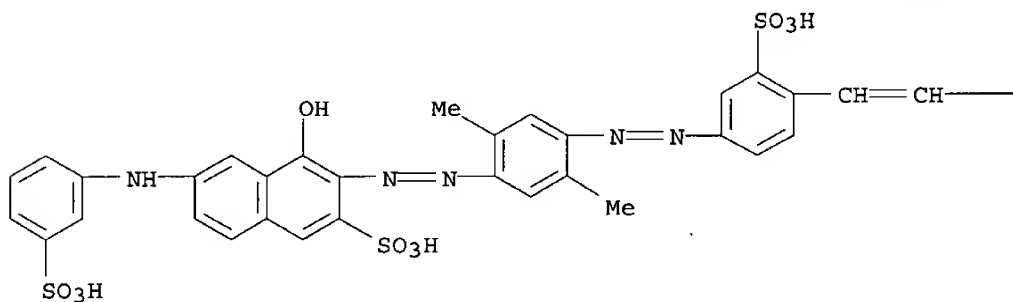
RN 94079-92-2 CAPLUS

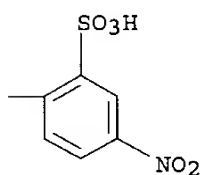
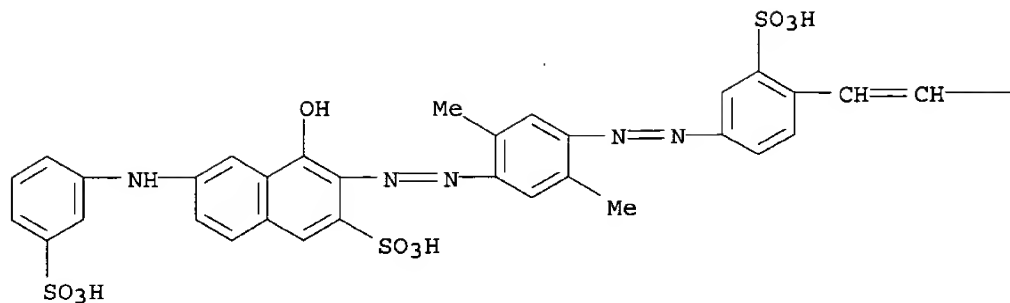
CN 2-Naphthalenesulfonic acid, 4-hydroxy-3-[[2-methoxy-5-methyl-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]-6-[(4-sulfophenyl)amino]- (9CI) (CA INDEX NAME)



RN 94079-93-3 CAPLUS

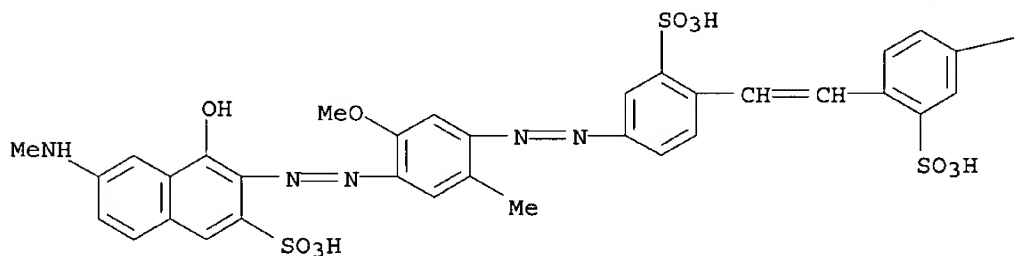
CN 2-Naphthalenesulfonic acid, 3-[[2,5-dimethyl-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]-4-hydroxy-6-[(3-sulfophenyl)amino]- (9CI) (CA INDEX NAME)





RN 94079-94-4 CAPLUS

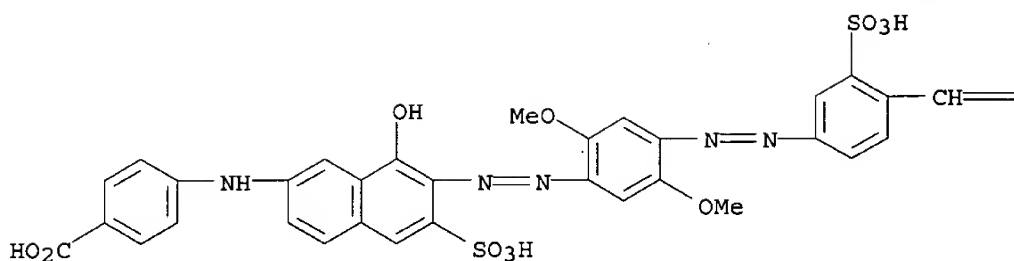
CN 2-Naphthalenesulfonic acid, 4-hydroxy-3-[[2-methoxy-5-methyl-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]-6-(methylamino)- (9CI) (CA INDEX NAME)



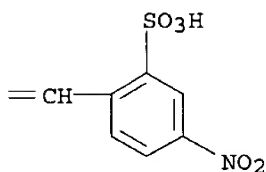
RN 94079-95-5 CAPLUS

CN Benzoic acid, 4-[[7-[[2,5-dimethoxy-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]-8-hydroxy-6-sulfo-2-naphthalenyl]amino]- (9CI) (CA INDEX NAME)

PAGE 1-A



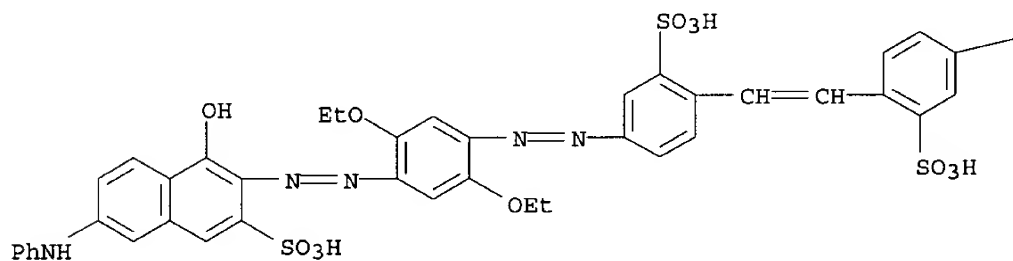
PAGE 1-B



RN 94079-96-6 CAPLUS

CN 2-Naphthalenesulfonic acid, 3-[[[2,5-diethoxy-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]-4-hydroxy-7-(phenylamino)]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

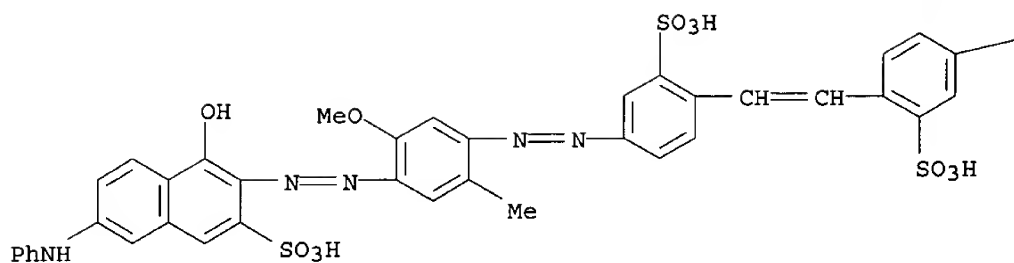
—NO₂

RN 94079-97-7 CAPLUS

CN 2-Naphthalenesulfonic acid, 4-hydroxy-3-[[[2-methoxy-5-methyl-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]-7-(phenylamino)]- (9CI) (CA INDEX NAME)

09567863

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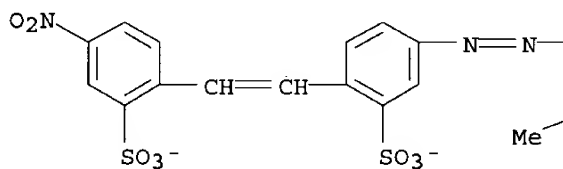


PAGE 1-B

—NO₂

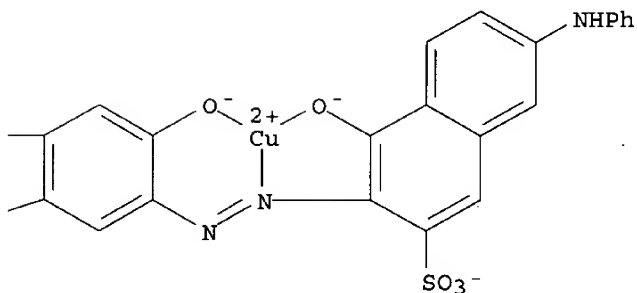
RN 94118-34-0 CAPLUS
 CN Cuprate(3-), [4-hydroxy-3-[[2-hydroxy-5-methyl-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]-7-(phenylamino)-2-naphthalenesulfonato(5-)]-, trihydrogen (9CI) (CA INDEX NAME)

PAGE 1-A



●3 H⁺

PAGE 1-B

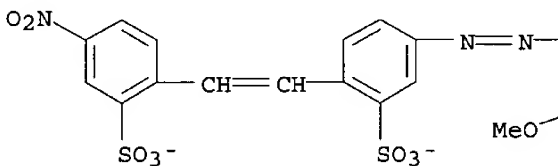


09567863

RN 94118-35-1 CAPLUS

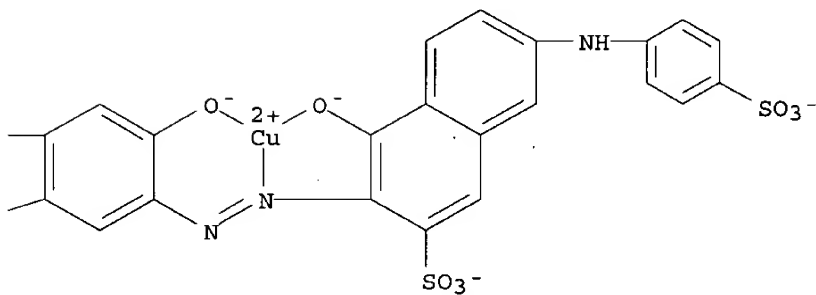
CN Cuprate(4-), [4-hydroxy-3-[[2-hydroxy-5-methoxy-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]-7-[(4-sulfophenyl)amino]-2-naphthalenesulfonato(6-)]-, tetrahydrogen (9CI) (CA INDEX NAME)

PAGE 1-A



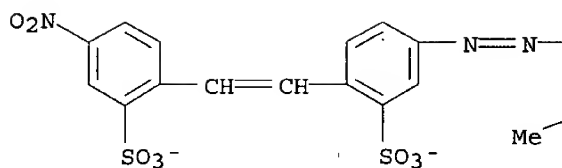
●4 H⁺

PAGE 1-B

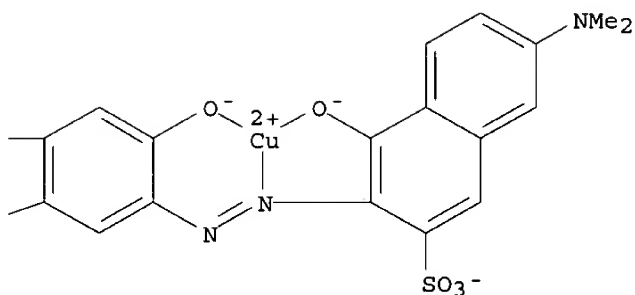


RN 94118-36-2 CAPLUS

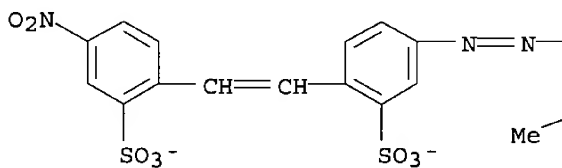
CN Cuprate(3-), [7-(dimethylamino)-4-hydroxy-3-[[2-hydroxy-5-methyl-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]-2-naphthalenesulfonato(5-)]-, trihydrogen (9CI) (CA INDEX NAME)



● 3 H⁺

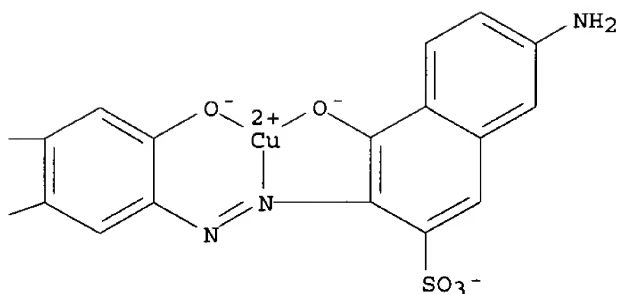


RN 94118-37-3 CAPLUS
 CN Cuprate(3-), [7-amino-4-hydroxy-3-[[2-hydroxy-5-methyl-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]-2-naphthalenesulfonato(5-)]-, trihydrogen (9CI) (CA INDEX NAME)



● 3 H⁺

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IT 94080-35-0

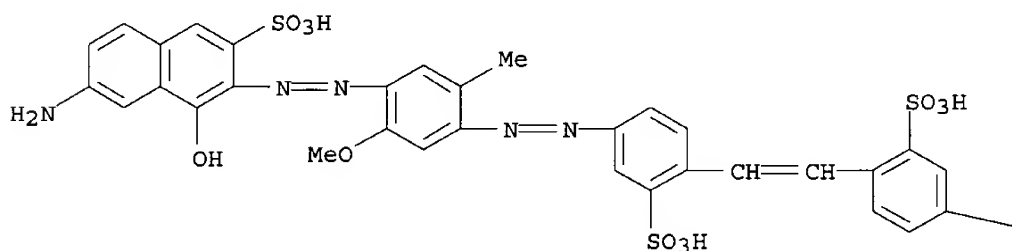
RL: MSC (Miscellaneous)

(dyes, for light-polarizing films)

RN 94080-35-0 CAPLUS

CN 2-Naphthalenesulfonic acid, 6-amino-4-hydroxy-3-[[2-methoxy-5-methyl-4-[[4-[2-(4-nitro-2-sulphophenyl)ethenyl]-3-sulphophenyl]azo]phenyl]azo]- (9CI)
(CA INDEX NAME)

PAGE 1-A



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NO₂

IT 94079-98-8P

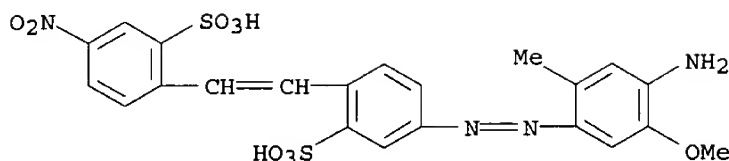
RL: PREP (Preparation)

(manuf. and coupling of diazotized, with J acid derivs.)

RN 94079-98-8 CAPLUS

CN Benzenesulfonic acid, 5-[(4-amino-5-methoxy-2-methylphenyl)azo]-2-[2-(4-nitro-2-sulphophenyl)ethenyl]- (9CI) (CA INDEX NAME)

09567863



L22 ANSWER 49 OF 86 CAPLUS COPYRIGHT 2003 ACS

AN 1985:50590 CAPLUS

DN 102:50590

TI Direct azo dyes and their effect on self-purification of water

AU Timofeeva, S. S.; Kashina, N. F.; Shevernovskaya, O. A.

CS Irk. Gos. Univ., Irkutsk, USSR

SO Deposited Doc. (1983), VINITI 6831-83, 109 pp. Avail.: VINITI

DT Report

LA Russian

AB All azo dyes studied, i.e., Direct Fast Bordeaux [94362-47-7], Direct Fast Orange 2 Zh [39363-31-0], Direct Dark Green [3626-28-6], Nigrosine Water Sol. (I) [8005-03-6], Direct Fast Brilliant Blue [6527-70-4], Direct Violet S [38493-85-5], Direct Brown KKh (II) [2429-82-5], Direct Black Z [1937-37-7], Direct Black 4K (III) [2429-83-6], and Direct Diazo Black S, [2429-73-4] had no substantial effect on the O conditions, pH, the development of saprophites, and the total count of microorganisms in the water when present in concns. of 0.001 mg/L. At higher concns., e.g., 0.1, 1.0, and 5.0 mg/L, the dyes cause more significant changes in water quality indexes and impact water self purifn. The max permissible concns. that do not effect self purifn. processes are 0.01 mg/L for I, II, and III, and 0.001 mg/L for the rest of the dyes.

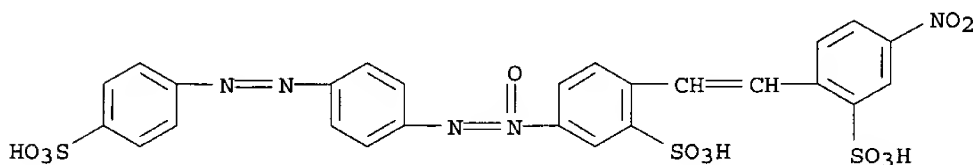
IT 39363-31-0

RL: POL (Pollutant); OCCU (Occurrence)

(water pollution by, effects of, on self purifn.)

RN 39363-31-0 CAPLUS

CN Benzenesulfonic acid, 2-[2-(4-nitro-2-sulfophenyl)ethenyl]-5-[[4-[(4-sulfophenyl)azolphenyl]-NNO-azoxy]-, trisodium salt (9CI) (CA INDEX NAME)



● 3 Na

L22 ANSWER 50 OF 86 CAPLUS COPYRIGHT 2003 ACS

AN 1984:105102 CAPLUS

DN 100:105102

TI Reactive dyes for cellulosic fibers

PA Mitsubishi Chemical Industries Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

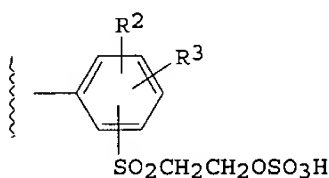
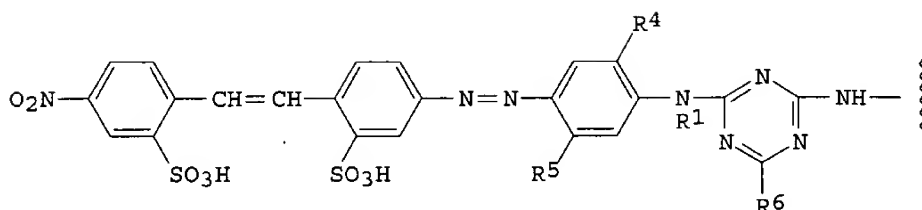
DT Patent

LA Japanese

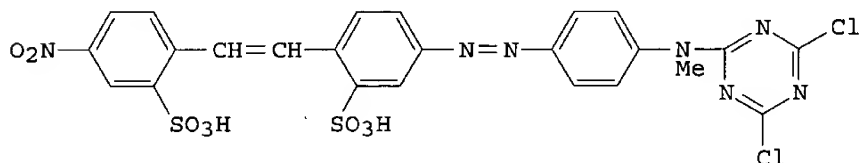
FAN.CNT 1

09567863

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 58191754	A2	19831109	JP 1982-75855	19820506
	JP 06043562	B4	19940608		
PRAI	JP 1982-75855		19820506		
GI					



I



II

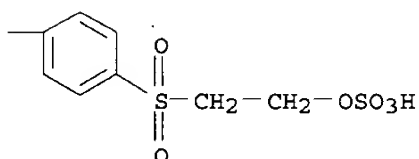
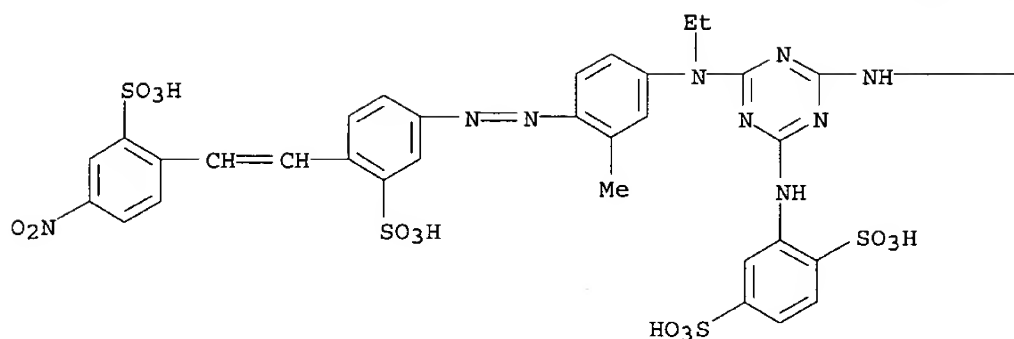
AB The title dyes, dyeing cellulosic fibers in deep yellow shades, were prepd. having the general formula I (R1 = H, Me, Et; R2, R3 = H, Me, MeO, sulfo; R4 = H, Me, MeO, EtO; R5 = H, Me, AcNH, Cl; R6 = aliph. or arom. amino group contg. 1 or 2 sulfo groups). Thus, II [4882-79-5] was condensed with 3-aminobenzenesulfonic acid [121-47-1] and then with 3-(2-sulfatoethylsulfonyl)aniline [2494-88-4], stirred at 90-95.degree. at pH 5-6 for 10 h, and salted with KCl to give I (R1 = Me; R2 = R3 = R4 = R5 = H; R6 = NHC6H4SO3H-m; m-SO2CH2CH2OSO3H) [89092-13-7] with Cl-fastness rating (on cotton, JIS 0884) 5.

IT 89092-00-2 89092-01-3 89092-02-4
89092-03-5 89092-04-6 89092-05-7
89092-06-8 89092-07-9 89092-08-0
89092-09-1 89092-13-7 89092-49-9
89092-50-2 89092-51-3

RL: TEM (Technical or engineered material use); USES (Uses)
(dye, for cotton, manuf. of)

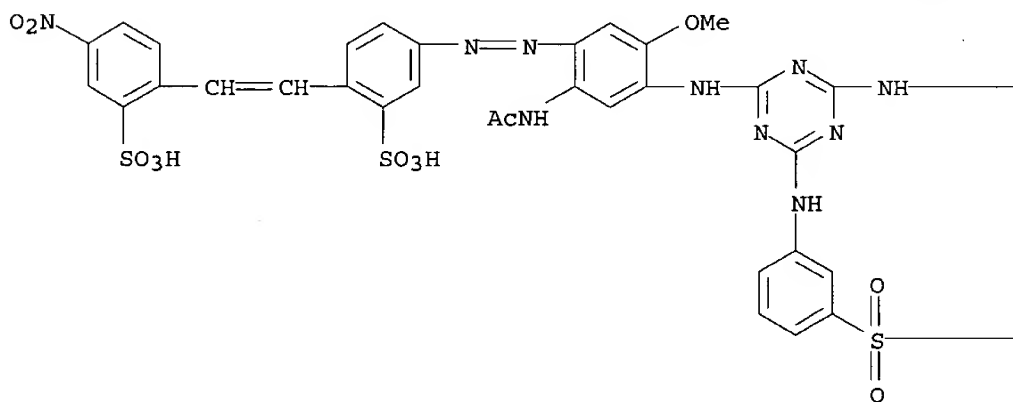
RN 89092-00-2 CAPLUS

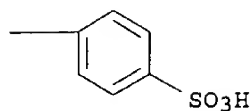
CN 1,4-Benzenedisulfonic acid, 2-[[4-[ethyl[3-methyl-4-[[4-[2-(4-nitro-2-sulfoxyphenyl)ethenyl]-3-sulfoxyphenyl]azo]phenyl]amino]-6-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]- (9CI)
(CA INDEX NAME)



RN 89092-01-3 CAPLUS

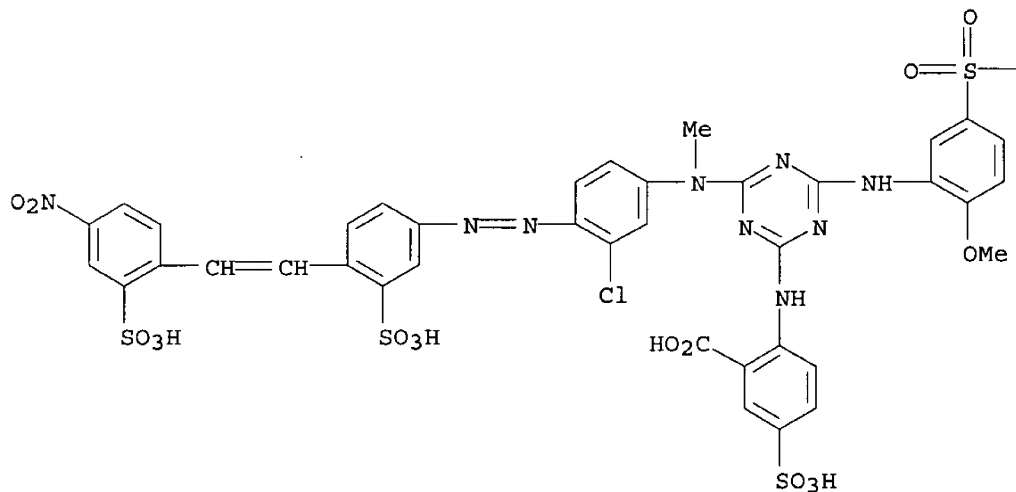
CN Benzenesulfonic acid, 5-[[2-(acetylamino)-5-methoxy-4-[[4-[[3-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-6-[[4-sulfophenyl]amino]-1,3,5-triazin-2-yl]amino]phenyl]azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]- (9CI)
(CA INDEX NAME)





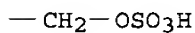
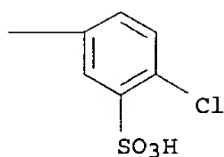
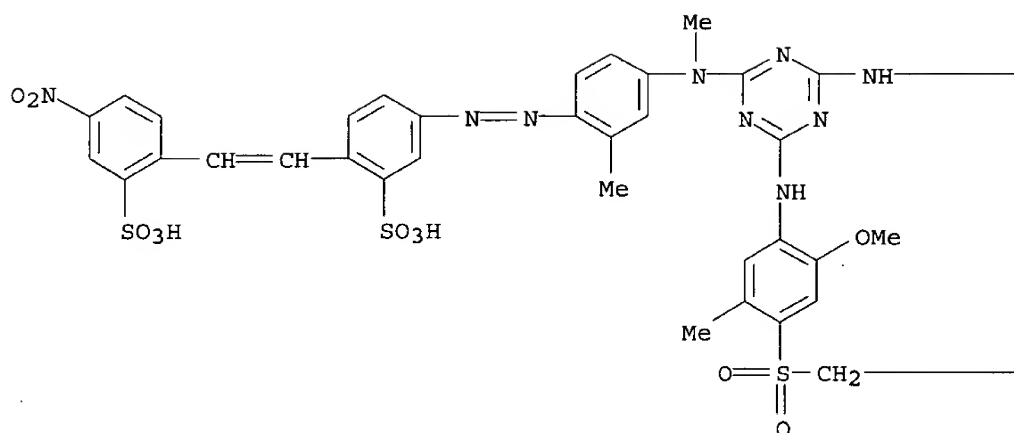
RN 89092-02-4 CAPLUS

CN Benzoic acid, 2-[[4-[[3-chloro-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]methylamino]-6-[[2-methoxy-5-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-5-sulfo-(9CI) (CA INDEX NAME)



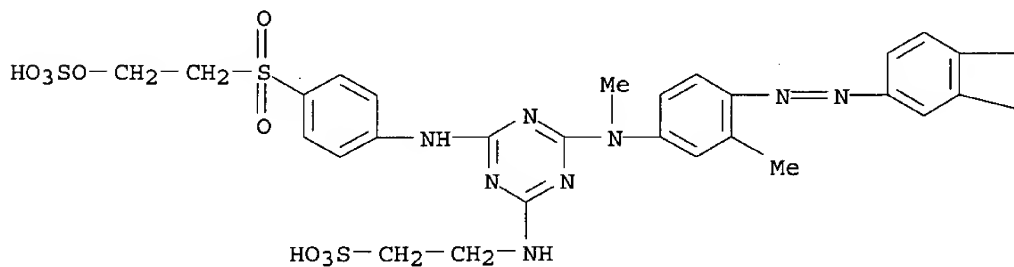
RN 89092-03-5 CAPLUS

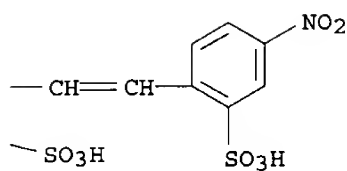
CN Benzenesulfonic acid, 5-[[4-[[4-[[4-chloro-3-sulfophenyl]amino]-6-[[2-methoxy-5-methyl-4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]methylamino]-2-methylphenyl]azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]- (9CI) (CA INDEX NAME)



RN 89092-04-6 CAPLUS

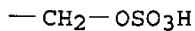
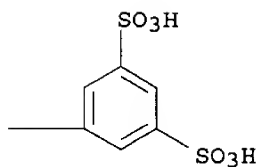
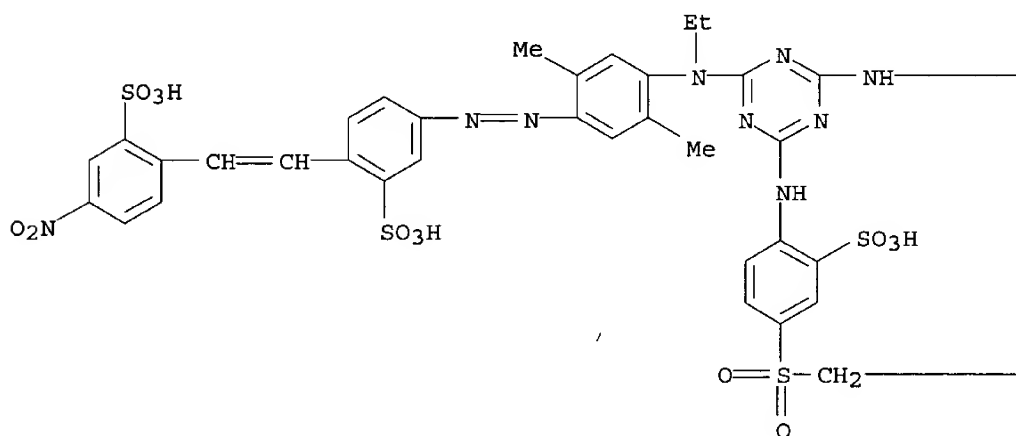
CN Benzenesulfonic acid, 5-[[2-methyl-4-[methyl[4-[(2-sulfoethyl)amino]-6-[[4-[[2-(sulfoxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]phenyl]azo]-2-[2-(4-nitro-2-sulphophenyl)ethenyl]- (9CI) (CA INDEX NAME)





RN 89092-05-7 CAPLUS

CN 1,3-Benzenedisulfonic acid, 5-[[4-[[2,5-dimethyl-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]ethylamino]-6-[[2-sulfo-4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-(9CI) (CA INDEX NAME)

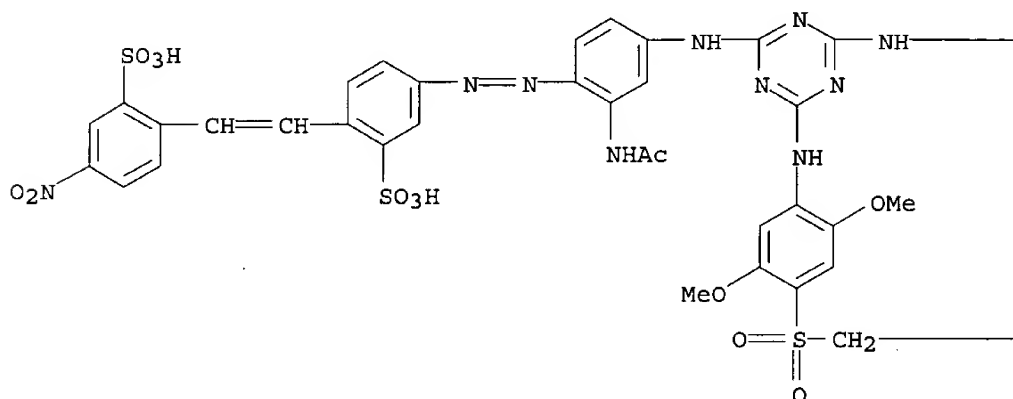


RN 89092-06-8 CAPLUS

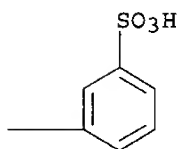
09567863

CN Benzenesulfonic acid, 5-[[2-(acetylamino)-4-[[4-[[2,5-dimethoxy-4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-6-[(3-sulfophenyl)amino]-1,3,5-triazin-2-yl]amino]phenyl]azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]- (9CI)
(CA INDEX NAME)

PAGE 1-A



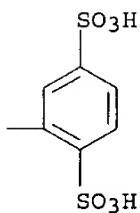
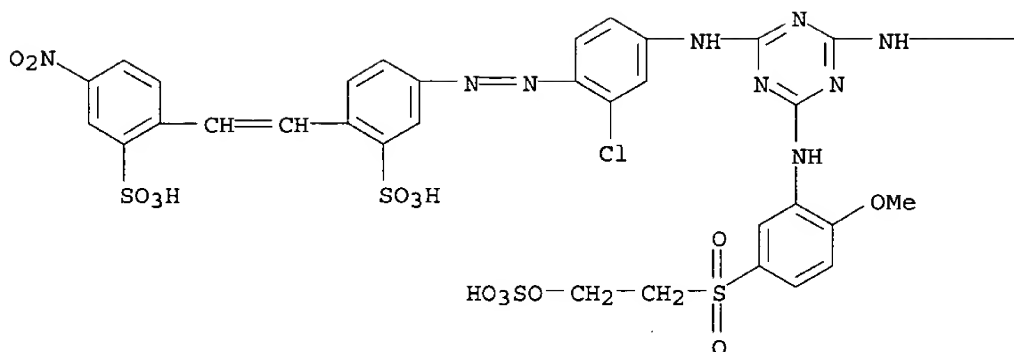
PAGE 1-B



—CH₂—OSO₃H

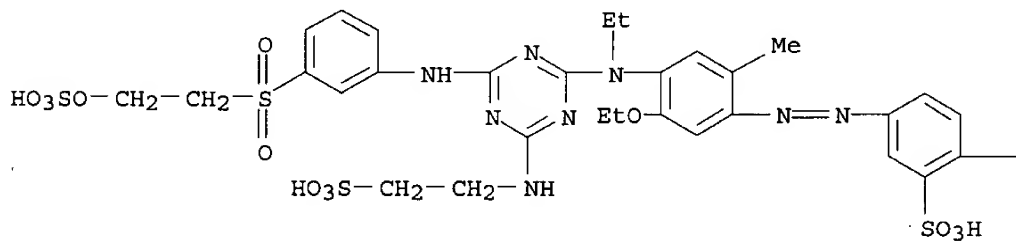
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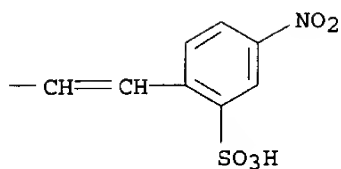
CN 1,4-Benzenedisulfonic acid, 2-[[4-[[3-chloro-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]amino]-6-[[2-methoxy-5-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]- (9CI)
(CA INDEX NAME)



RN 89092-08-0 CAPLUS

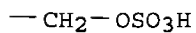
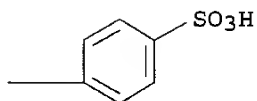
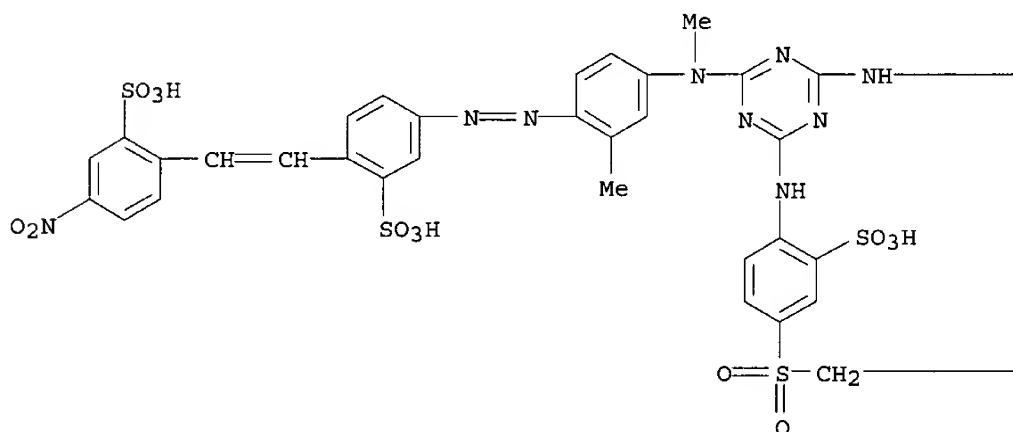
CN Benzenesulfonic acid, 5-[[5-ethoxy-4-[ethyl[4-[(2-sulfoethyl)amino]-6-[[3-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-2-methylphenyl]azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]- (9CI) (CA INDEX NAME)





RN 89092-09-1 CAPLUS

CN Benzenesulfonic acid, 2-[[4-[methyl[3-methyl-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]amino]-6-[(4-sulfophenyl)amino]-1,3,5-triazin-2-yl]amino]-5-[[2-(sulfooxy)ethyl]sulfonyl]- (9CI) (CA INDEX NAME)

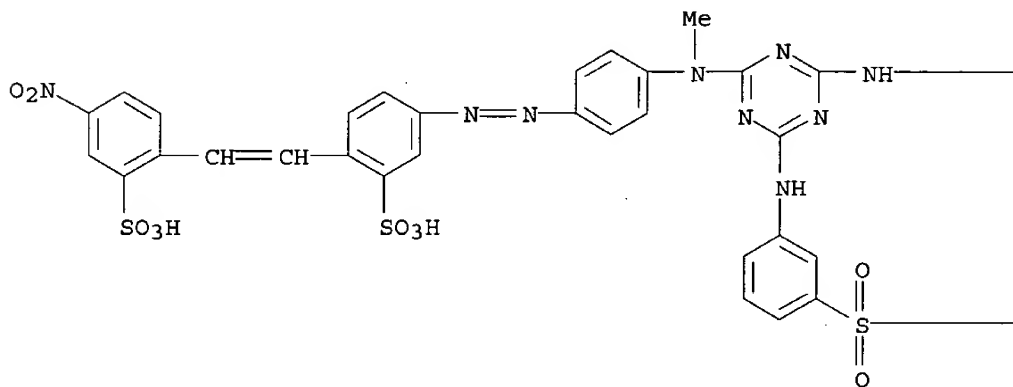


RN 89092-13-7 CAPLUS

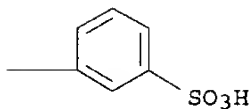
09567863

CN Benzenesulfonic acid, 5-[[4-[methyl[4-[[3-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-6-[(3-sulfophenyl)amino]-1,3,5-triazin-2-yl]amino]phenyl]azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]- (9CI)
(CA INDEX NAME)

PAGE 1-A



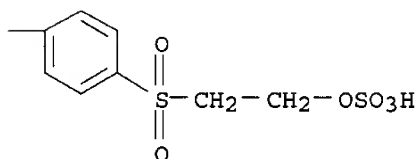
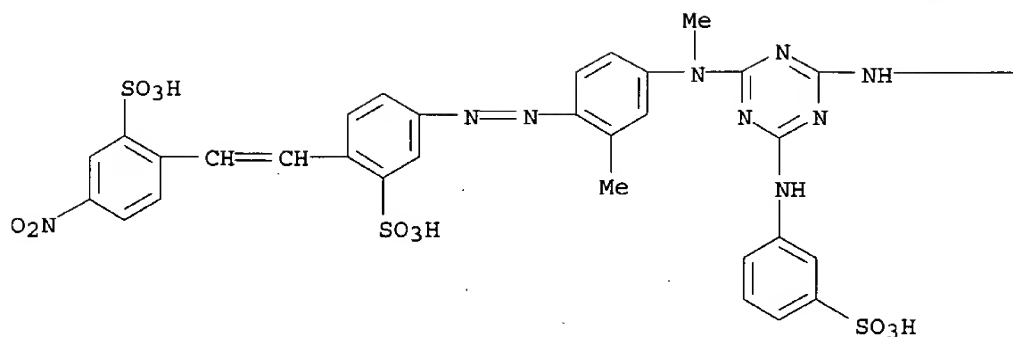
PAGE 1-B



—CH₂—CH₂—OSO₃H

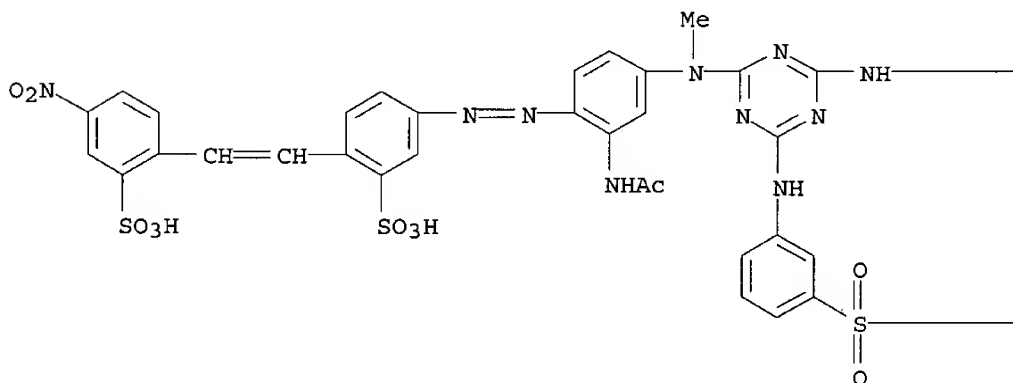
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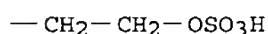
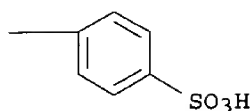
CN Benzenesulfonic acid, 5-[[2-methyl-4-[methyl[4-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-6-[(3-sulfophenyl)amino]-1,3,5-triazin-2-yl]amino]phenyl]azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]- (9CI)
(CA INDEX NAME)



RN 89092-50-2 CAPLUS

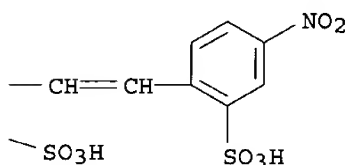
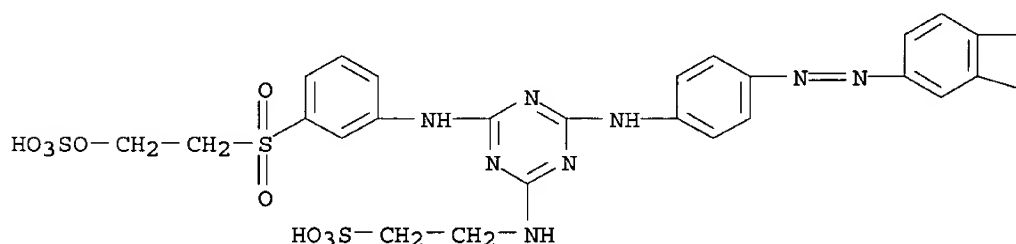
CN Benzenesulfonic acid, 5-[[2-(acetylamino)-4-[methyl[4-[[3-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-6-[(4-sulfophenyl)amino]-1,3,5-triazin-2-yl]amino]phenyl]azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]- (9CI)
(CA INDEX NAME)





RN 89092-51-3 CAPLUS

CN Benzenesulfonic acid, 2-[2-(4-nitro-2-sulfophenyl)ethenyl]-5-[[4-[[4-[(2-sulfoethyl)amino]-6-[[3-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]phenyl]azo]- (9CI) (CA INDEX NAME)



IT **89092-10-4P**

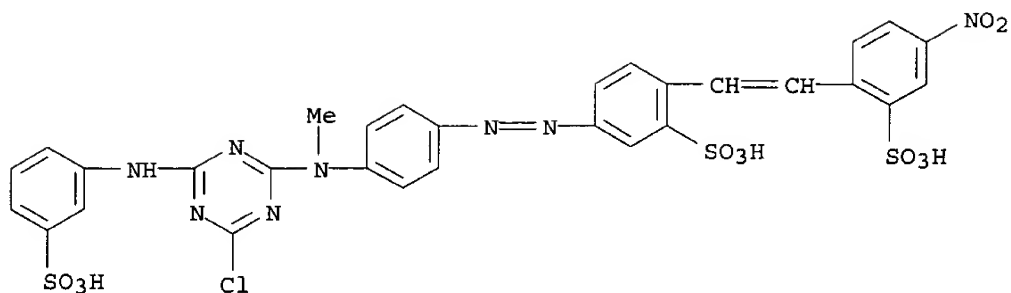
RL: PREP (Preparation)

(manuf. and reaction with (sulfatoethylsulfonyl)aniline, in reactive dye manuf.)

RN 89092-10-4 CAPLUS

CN Benzenesulfonic acid, 5-[[4-[[4-chloro-6-[(3-sulfophenyl)amino]-1,3,5-triazin-2-yl]methylanino]phenyl]azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]- (9CI) (CA INDEX NAME)

09567863



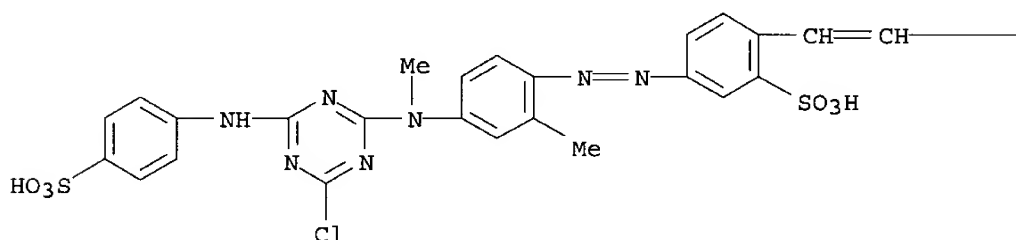
IT 89092-12-6P

RL: PREP (Preparation)
(manuf. and reaction with aniline deriv.)

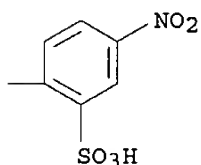
RN 89092-12-6 CAPLUS

CN Benzenesulfonic acid, 5-[[4-[[4-chloro-6-[(4-sulfophenyl)amino]-1,3,5-triazin-2-yl]methylamino]-2-methylphenyl]azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



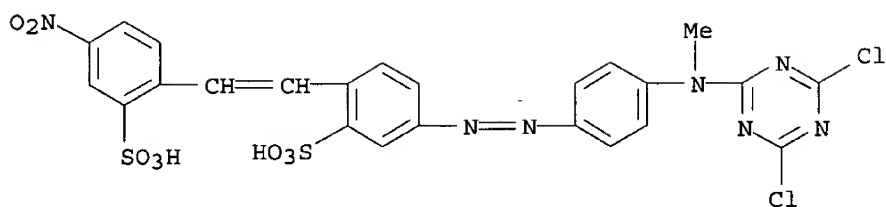
IT 4882-79-5 89092-11-5

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with aminobenzenesulfonic acid)

RN 4882-79-5 CAPLUS

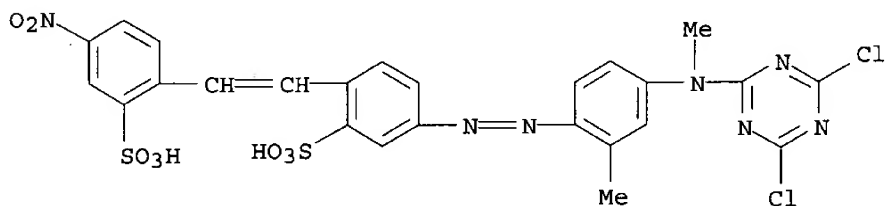
CN Benzenesulfonic acid, 5-[[4-[[4,6-dichloro-1,3,5-triazin-2-yl]methylamino]phenyl]azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]- (9CI) (CA INDEX NAME)

09567863



RN 89092-11-5 CAPLUS

CN Benzenesulfonic acid, 5-[[4-[[4,6-dichloro-1,3,5-triazin-2-yl)methylamino]-2-methylphenyl]azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]- (9CI) (CA INDEX NAME)



L22 ANSWER 51 OF 86 CAPLUS COPYRIGHT 2003 ACS

AN 1984:105091 CAPLUS

DN 100:105091

TI Reactive stilbene azo dyes for cellulosic fibers

PA Mitsubishi Chemical Industries Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 4 pp.

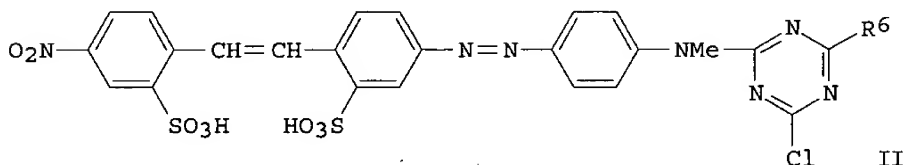
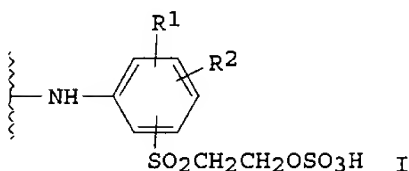
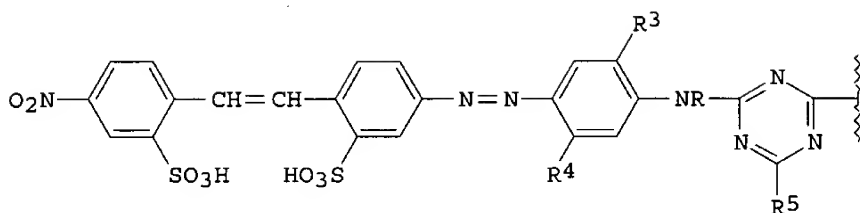
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 58160361	A2	19830922	JP 1982-43284	19820318
PRAI	JP 1982-43284		19820318		
GI					



AB The title dyes are represented by the general formula I (R = H, Me, Et; R1, R2 = H, Me, OMe, sulfo; R3 = H, Me, OMe, OEt; R4 = H, Me, NHCOMe, Cl; R5 = Cl, F). They produce fast, deep yellow shades on cellulosic fibers. Thus, II (R6 = Cl) [4882-79-5] and 3-H2NC6H4SO2CH2CH2OSO3H [2494-88-4] reacted in an aq. medium at pH 5-6 with stirring for 10 h to give reactive dye II (R6 = NHC6H4SO2CH2CH2OSO3H-3) (III) [89050-11-3] by salting-out. Cotton cloth dyed with III showed excellent Cl fastness. Thirteen other I were prepd.

IT 89049-99-0P 89050-00-0P 89050-01-1P
89050-02-2P 89050-03-3P 89050-04-4P
89050-05-5P 89050-06-6P 89050-07-7P
89050-08-8P 89050-09-9P 89050-10-2P
89050-11-3P 89067-46-9P

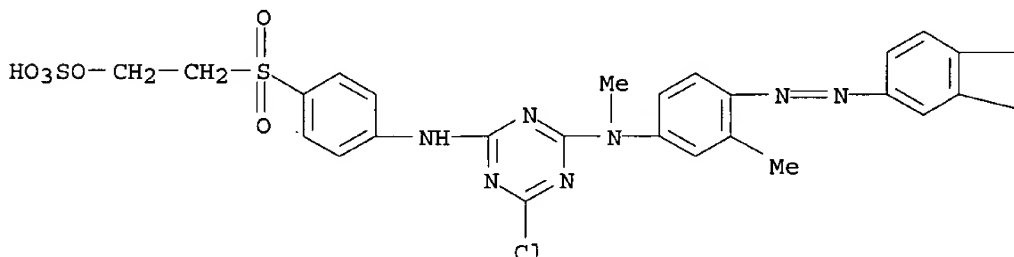
RL: PREP (Preparation)

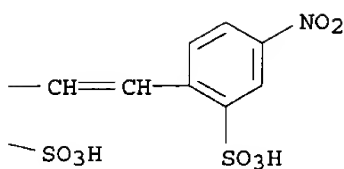
(manuf. of, as reactive dye for cellulose fibers)

RN 89049-99-0 CAPLUS

CN Benzenesulfonic acid, 5-[[4-[[4-chloro-6-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]methylamino]-2-methylphenyl]azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]- (9CI) (CA INDEX NAME)

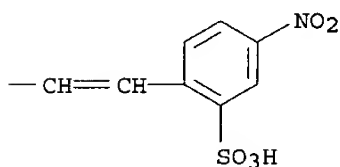
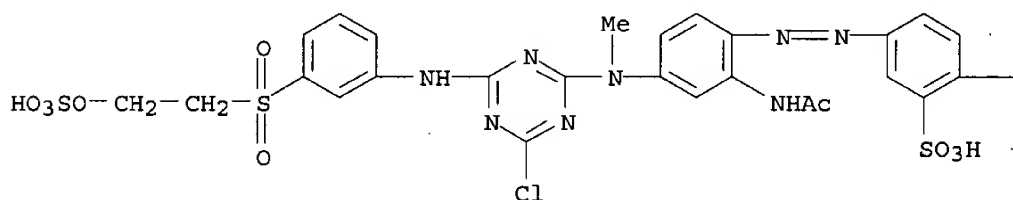
PAGE 1-A





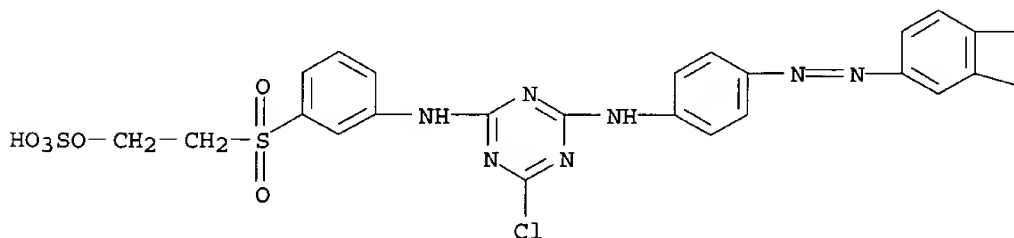
RN 89050-00-0 CAPLUS

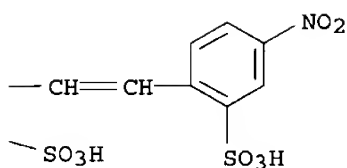
CN Benzenesulfonic acid, 5-[[2-(acetylamino)-4-[[4-chloro-6-[[3-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]methylamino]phenyl]azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl] - (9CI)
(CA INDEX NAME)



RN 89050-01-1 CAPLUS

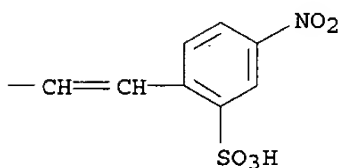
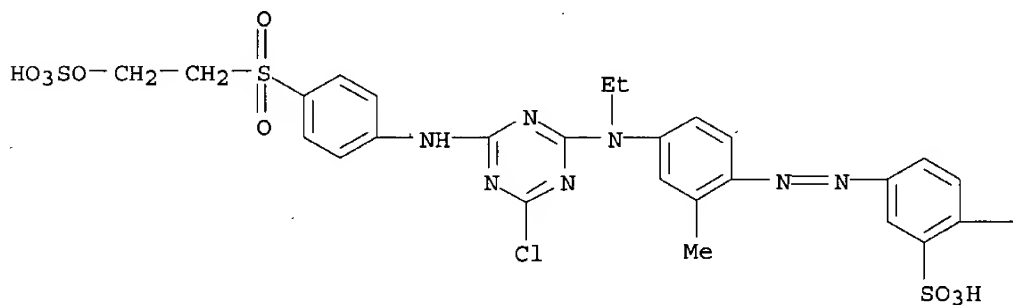
CN Benzenesulfonic acid, 5-[[4-[[4-chloro-6-[[3-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]phenyl]azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl] - (9CI) (CA INDEX NAME)





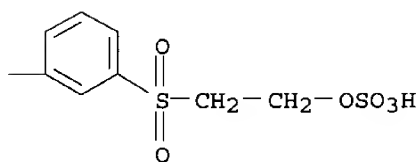
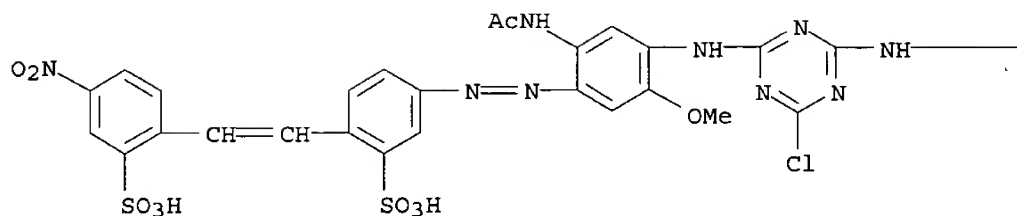
RN 89050-02-2 CAPLUS

CN Benzenesulfonic acid, 5-[[4-[[4-chloro-6-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]ethenyl]-2-methylphenyl]azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]- (9CI) (CA INDEX NAME)



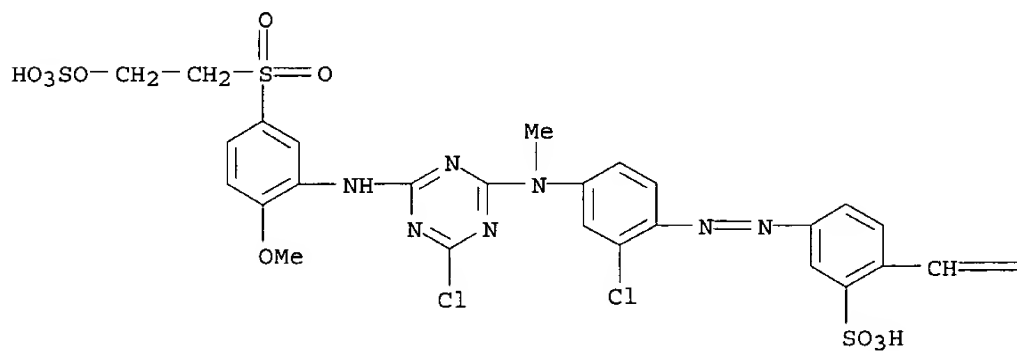
RN 89050-03-3 CAPLUS

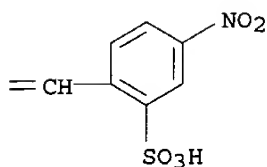
CN Benzenesulfonic acid, 5-[[2-(acetylamino)-4-[[4-chloro-6-[[3-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-5-methoxyphenyl]azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]- (9CI) (CA INDEX NAME)



RN 89050-04-4 CAPLUS

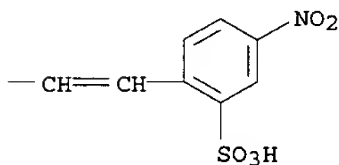
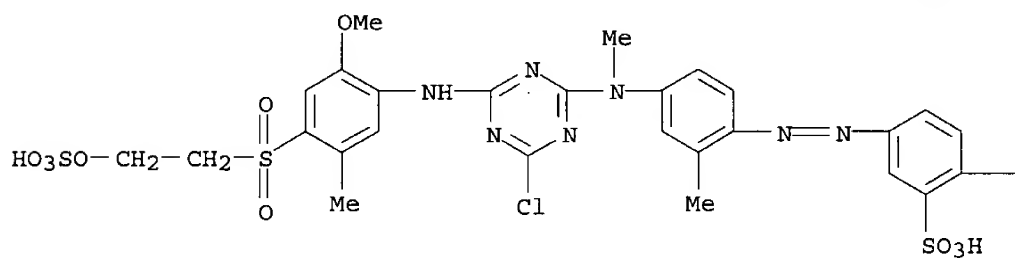
CN Benzenesulfonic acid, 5-[[2-chloro-4-[[4-chloro-6-[[2-methoxy-5-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]methylamino]phenyl]azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]- (9CI)
(CA INDEX NAME)





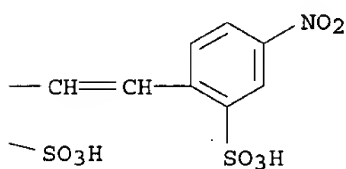
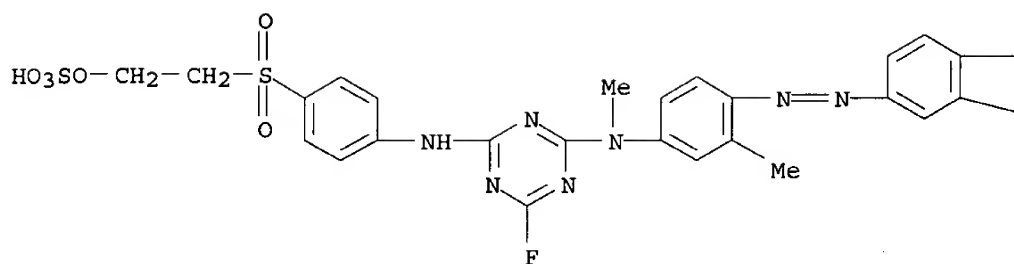
RN 89050-05-5 CAPLUS

CN Benzenesulfonic acid, 5-[[4-[[4-chloro-6-[[2-methoxy-5-methyl-4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]methylamino]-2-methylphenyl]azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]- (9CI) (CA INDEX NAME)



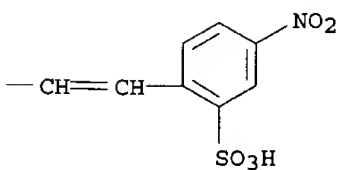
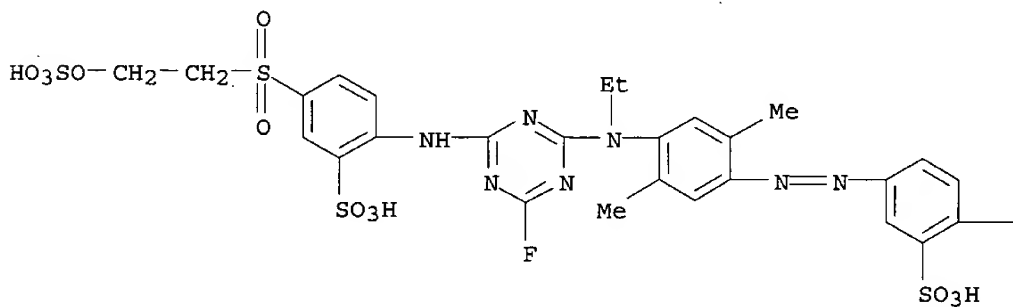
RN 89050-06-6 CAPLUS

CN Benzenesulfonic acid, 5-[[4-[[4-fluoro-6-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]methylamino]-2-methylphenyl]azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]- (9CI) (CA INDEX NAME)



RN 89050-07-7 CAPLUS

CN Benzenesulfonic acid, 5-[[4-[ethyl[4-fluoro-6-[[2-sulfo-4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-2,5-dimethylphenyl]azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]- (9CI) (CA INDEX NAME)

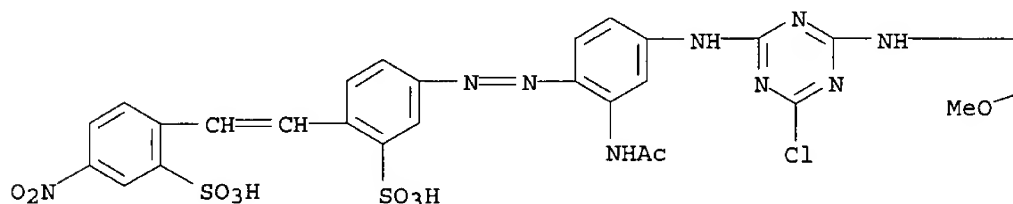


09567863

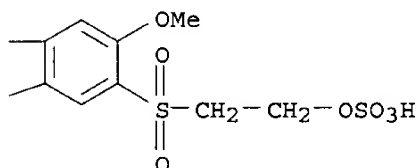
RN 89050-08-8 CAPLUS

CN Benzenesulfonic acid, 5-[[2-(acetylamino)-4-[[4-chloro-6-[[2,5-dimethoxy-4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]phenyl]azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]- (9CI) (CA INDEX NAME)

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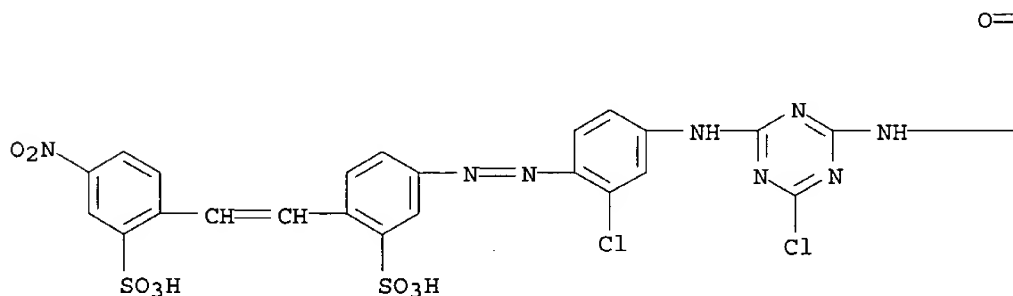
PAGE 1-B



RN 89050-09-9 CAPLUS

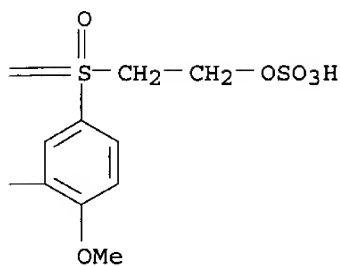
CN Benzenesulfonic acid, 5-[[2-chloro-4-[[4-chloro-6-[[2-methoxy-5-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]phenyl]azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]- (9CI) (CA INDEX NAME)

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09567863

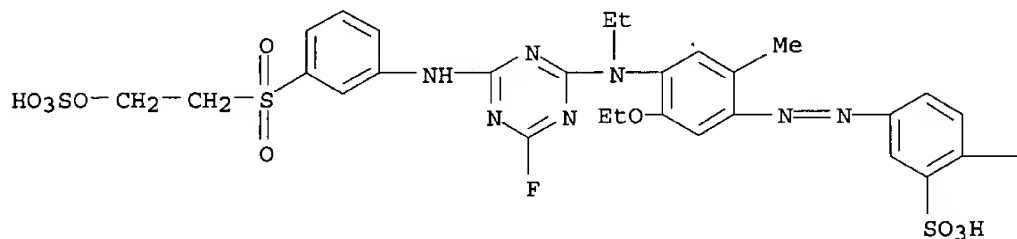
PAGE 1-B



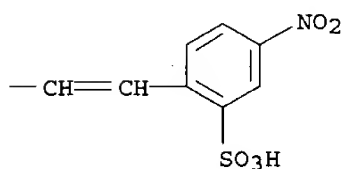
RN 89050-10-2 CAPLUS

Benzenesulfonic acid, 5-[[[5-ethoxy-4-[ethyl[4-fluoro-6-[[3-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-2-methylphenyl]azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

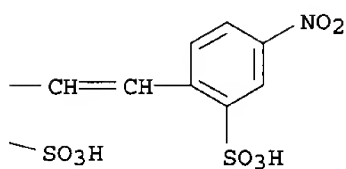
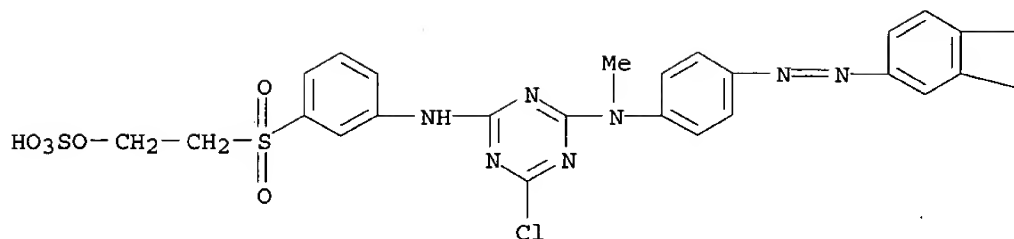


PAGE 1-B



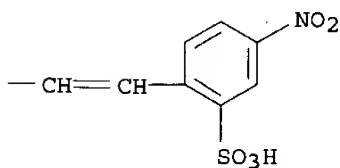
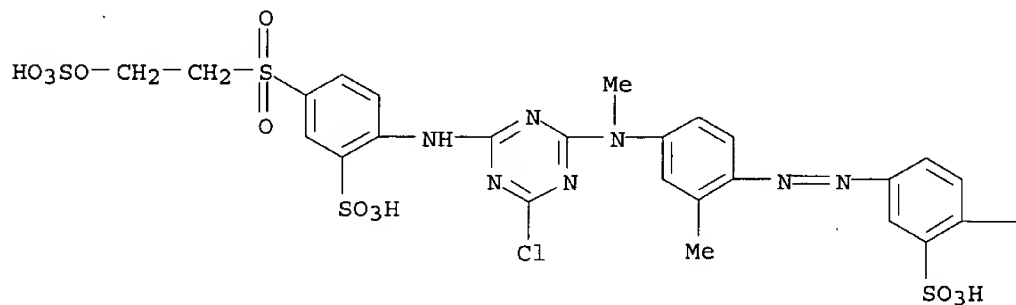
RN 89050-11-3 CAPLUS

Benzenesulfonic acid, 5-[[[4-[[4-chloro-6-[[3-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]methylamino]phenyl]azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]]- (9CI)
(CA INDEX NAME)



RN 89067-46-9 CAPLUS

CN Benzenesulfonic acid, 5-[[4-[[4-chloro-6-[[2-sulfo-4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]methylamino]-2-methylphenyl]azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]- (9CI) (CA INDEX NAME)



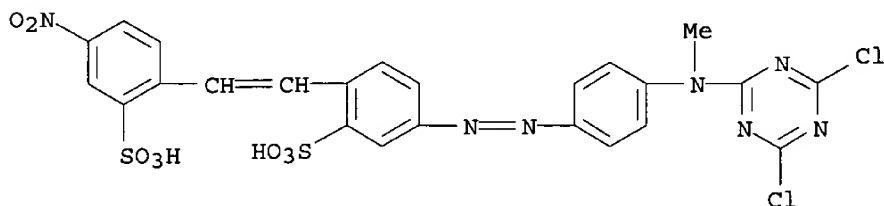
09567863

IT 4882-79-5

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with (aminophenylsulfonyl)ethyl hydrogen sulfate)

RN 4882-79-5 CAPLUS

CN Benzenesulfonic acid, 5-[[4-[(4,6-dichloro-1,3,5-triazin-2-yl)methylamino]phenyl]azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]- (9CI)
(CA INDEX NAME)

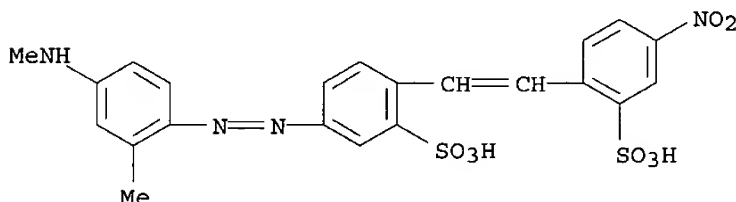


IT 89049-98-9

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with aminodichlorotriazine deriv.)

RN 89049-98-9 CAPLUS

CN Benzenesulfonic acid, 5-[[2-methyl-4-(methylamino)phenyl]azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]- (9CI) (CA INDEX NAME)



L22 ANSWER 52 OF 86 CAPLUS COPYRIGHT 2003 ACS

AN 1983:614149 CAPLUS

DN 99:214149

TI Stilbene azo compounds and their use

IN Oppliger, Max

PA Sandoz-Patent-G.m.b.H., Fed. Rep. Ger.

SO Ger. Offen., 32 pp.

CODEN: GWXXBX

DT Patent

LA German

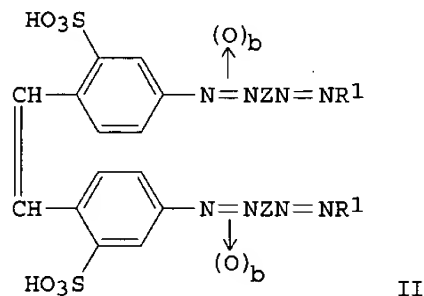
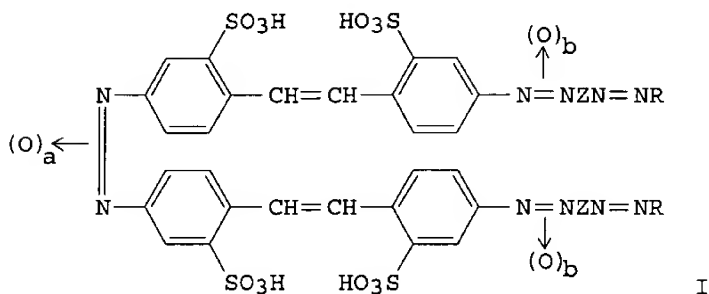
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3247605	A1	19830707	DE 1982-3247605	19821223
	DE 3247605	C2	19890601		
	CH 654588	A	19860228	CH 1982-7452	19821221
	FR 2519345	A1	19830708	FR 1982-22039	19821229
	FR 2519345	B1	19860221		
	ES 518659	A1	19840216	ES 1982-518659	19821229
	GB 2112799	A1	19830727	GB 1982-36930	19821230
	GB 2112799	B2	19850703		
	BR 8207624	A	19831025	BR 1982-7624	19821230
	ZA 8209598	A	19841128	ZA 1982-9598	19821230
	JP 58145761	A2	19830830	JP 1983-29	19830104

09567863

JP 04021707	B4	19920413		
US 4954133	A	19900904	US 1986-828934	19860212
BE 904556	A7	19860731	BE 1986-11470	19860407
PRAI DE 1981-3151978		19811231		
US 1983-455140		19830103		
US 1985-705744		19850226		

GI



AB Compds. of general structure I, their metal complexes or salts, and their mixts. with compds. of structure II or metal complexes of II are prepd. for use as direct dyes. In structures I and II, Z represents a (un)substituted p-phenylene or 1,4-naphthylene radical; R is the residue of a diazo or coupling component; R1 is a (un)substituted Ph or naphthyl group; and a and b are 0 or 1. The wetfastness of I on cellulosic substrates is improved by use of certain cationic fixing agents, e.g. amine-dicyandiamide condensation products. Thus, condensation of 4,4'-dinitro-2,2'-stilbenedisulfonic acid [128-42-7] with 2,4-MeO(MeNH)C6H3N:NC6H3(OH)SO3H-2,5 [87730-54-9] in aq. NaOH, removal of pptd. (by EtOH) II [Z = 3-methoxy-1,4-phenylene; b = 0; R1 = C6H3(OH)SO3H-2,5] (III) [87730-55-0] by filtration, treatment of the concd. filtrate with glycerol at reflux, adjustment to pH 9, and demethylation-copperization of the product gave the bis-Cu complex (IV) [87765-26-2] of I [Z = 3-hydroxy-1,4-phenylene, a = 1, b = 0, R = C6H3(OH)SO3H-2,5], a dark brown dye for cotton. Prepn. of IV without prior removal of III also produced a dark brown dye.

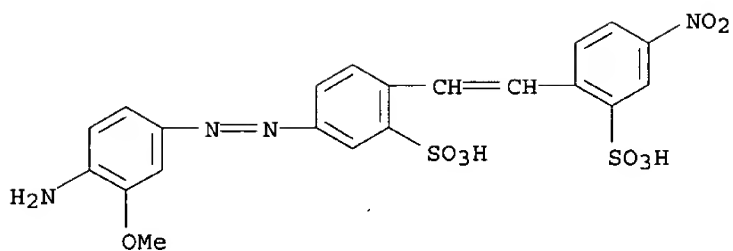
IT 87730-52-7P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and azo coupling of, with hydroxynaphthalenesulfonic acid)

RN 87730-52-7 CAPLUS

CN Benzenesulfonic acid, 5-[(4-amino-3-methoxyphenyl)azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]- (9CI) (CA INDEX NAME)

09567863



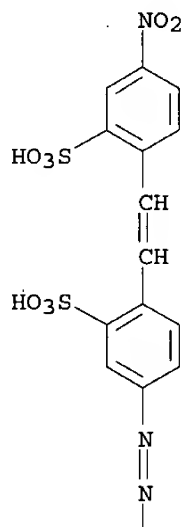
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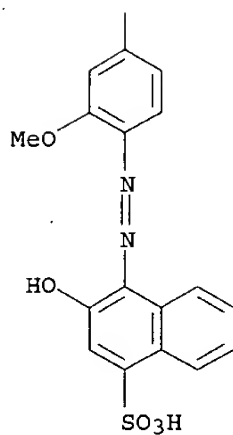
RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. and demethylation-copperization of)

RN 87730-53-8 CAPLUS

CN 1-Naphthalenesulfonic acid, 3-hydroxy-4-[[2-methoxy-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]- (9CI) (CA INDEX NAME)

PAGE 1-A



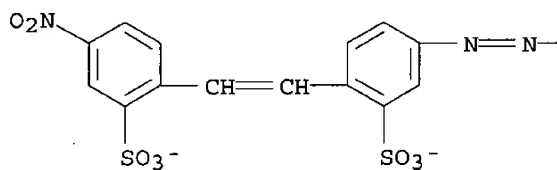


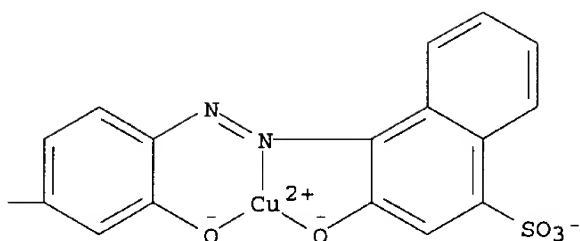
IT 87765-27-3P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
(Reactant or reagent)
(prepn. and reductive self-coupling of)

RN 87765-27-3 CAPLUS

CN Cuprate(3-), [3-hydroxy-4-[[2-hydroxy-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]azo]-1-naphthalenesulfonato(5-)]-, trihydrogen (9CI) (CA INDEX NAME)

● 3 H⁺



L22 ANSWER 53 OF 86 CAPLUS COPYRIGHT 2003 ACS

AN 1984:77410 CAPLUS

DN 100:77410

TI Negative photoresist

IN Ciz, Gabriel; Luzakova, Vlasta; Blazej, Anton; Zuffa, Milan
PA Czech.

SO Czech., 3 pp.

CODEN: CZXXA9

DT Patent

LA Slovak

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CS 204792	B	19810430	CS 1979-6310	19790919
PRAI	CS 1979-6310		19790919		

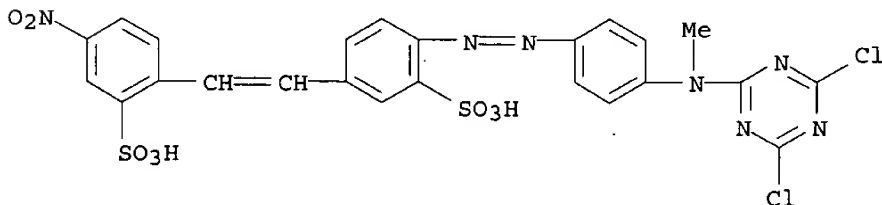
AB A neg.-working photoresist material for printing plate prepn. is prepd. from a reactive dye, such as Ostazine Yellow S-GR (I), and a hydrophilic polymer, such as CM-cellulose or hydroxyethyl cellulose (II). Thus, II 5, H₂O 25, I 1 g, 6% NaCl 5, 0.03% Na₂CO₃ 10, and 0.06% NaOH 5 mL were heated at 25-40.degree., the modified II pptd. with EtOH, dissolved in 200 mL H₂O, coated on an anodically oxidized Al sheet by centrifugation, dried at 40.degree., imagewise exposed using a 300 W UV lamp for 10 min, and developed with warm water to give the printing plate.

IT 88741-36-0

RL: TEM (Technical or engineered material use); USES (Uses)
(photoresist compn. contg., for printing plates)

RN 88741-36-0 CAPLUS

CN Benzenesulfonic acid, 2-[[4-[(4,6-dichloro-1,3,5-triazin-2-yl)methylamino]phenyl]azo]-5-[2-(4-nitro-2-sulphophenyl)ethenyl]-, disodium salt (9CI) (CA INDEX NAME)



●2 Na

09567863

AN 1983:162365 CAPLUS
 DN 98:162365
 TI Dyes for cellulose fibers
 IN Bujala, Kazimierz; Cieslak, Wieslaw; Gralinski, Mirosław; Jammer, Halina; Salagacki, Ryszard
 PA Osrodek Badawczo-Rozwojowy Przemysłu Barwników "Organika", Pol.
 SO Pol., 3 pp.
 CODEN: POXXA7
 DT Patent
 LA Polish
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	PL 113456	B1	19801231	PL 1978-205879	19780406
PRAI	PL 1978-205879		19780406		
GI					

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Dyes for dyeing cellulose fibers at different stages of their processing in yellow-red shades comprise I (R = residue of a SO₃H-contg. arom. azo compd. or residue of a product from redn. with glucose or Na₂S of p-aminophenylazo-substituted benzoic or benzenesulfonic acid or residue of a CO₂H- or SO₃H-contg. aminodiaryltriazole) 75-80, (R₁R₂R₃C₆H₂)N:NZ:NR₄ (R₁ = H, Cl, Me; R₂ = H, SO₃H; R₃ = H, Cl, Me, MeO, NH₂; Z = C₆H₄ or MeC₆H₃; R₄ = residue of resorcinol or hydroxynaphthalenesulfonic acid derivs.) 15-25, and R₁N:NZ:NR₂ (R₁ = residue of aniline or sulfoaniline or sulfonaphthalene; Z, Z₁ = naphthylene or sulfonaphthylene; R₂ = residue of J acid or gamma acid or their derivs.) 0.5-3.0 parts. Thus, a typical dye mixt. comprised II [85139-37-3] 78, III [2610-11-9] 21, and IV [4399-55-7] 1 part. Cellulose fibers dyed with this dye exhibited good levelness and, after treatment with cationic assistant IS, had good water-, perspiration-, wash-, and rubfastness.

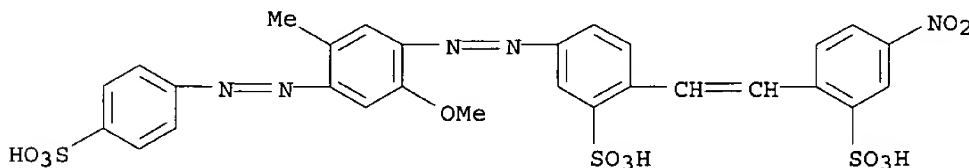
IT 85139-37-3

RL: USES (Uses)

(dyes, for cellulose fibers)

RN 85139-37-3 CAPLUS

CN Benzenesulfonic acid, 5-[[2-methoxy-5-methyl-4-[(4-sulfophenyl)azo]phenyl]azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]-, trisodium salt (9CI) (CA INDEX NAME)



3 Na

09567863

DN 97:164520
TI Disazo triazine copper complex dyes
IN Tabei, Tooru
PA Nippon Kayaku Co., Ltd. , Japan
SO Patentschrift (Switz.), 20 pp. Division of Patentschrift (Switz.) Appl.
No. 17,144.
CODEN: SWXXAS
DT Patent
LA German
FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	---	-----	-----	-----
PI	CH 628920	A	19820331	CH 1979-11289	19791219
	JP 49080373	A2	19740802	JP 1972-121694	19721206
	JP 52015712	B4	19770502		
	JP 49081437	A2	19740806	JP 1972-123701	19721209
	JP 55038374	B4	19801003		
	JP 50026830	A2	19750319	JP 1973-77066	19730710
	JP 55038375	B4	19801003		
	JP 50030930	A2	19750327	JP 1973-82271	19730719
	JP 55038376	B4	19801003		
PRAI	JP 1972-121694		19721206		
	JP 1972-123701		19721209		
	JP 1973-77066		19730710		
	JP 1973-82271		19730719		
	CH 1973-17144		19731206		

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

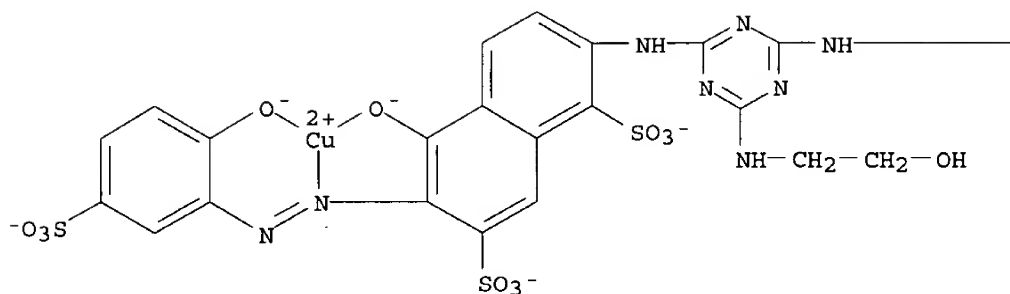
AB Azo dyes (I; R = optionally substituted benzene residue not contg. OH, CO₂H, MeO, EtO groups ortho to azo bond; sulfo group-substituted naphthalene or stilbene; azo chromophore; R₁, R₃ = H, Me; R₁ = morpholino, diethanolamino, ethanolamino, MeN; R₄ = H, SO₃H; SO₃H meta or para to azo group) are prepd. by reaction of cyanuric halide in the presence of 1 part acid binder based on mol. ratios of reactants with 1 part (phenylazo)naphthylamine copper complex with 1 part RN:N-substituted hydroxysulfonaphthylamine and then with 1 part R₂H. These water-sol. red dyes have a high affinity for paper and cellulosic fibers. A typical compd. prepd. was II.

IT **82688-28-6P**

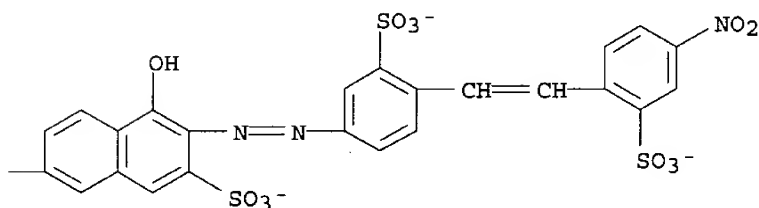
RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. of)

RN 82688-28-6 CAPLUS

CN Cuprate(6-), [5-hydroxy-2-[[4-[[5-hydroxy-6-[[4-[2-(4-nitro-2-sulphophenyl)ethenyl]-3-sulphophenyl]azo]-7-sulfo-2-naphthalenyl]amino]-6-[(2-hydroxyethyl)amino]-1,3,5-triazin-2-yl]amino]-6-[(2-hydroxy-5-sulphophenyl)azo]-1,7-naphthalenedisulfonato(8-)]-, hexahydrogen (9CI) (CA INDEX NAME)



● 6 H⁺



L22 ANSWER 56 OF 86 CAPLUS COPYRIGHT 2003 ACS

AN 1981:32174 CAPLUS

DN 94:32174

TI Polyazo dyes

IN Nickel, Horst

PA Bayer A.-G., Fed. Rep. Ger.

SO Ger. Offen., 16 pp.

CODEN: GWXXBX

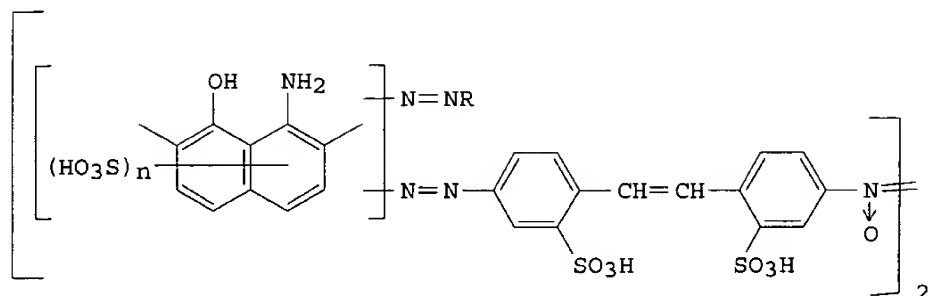
DT Patent

LA German

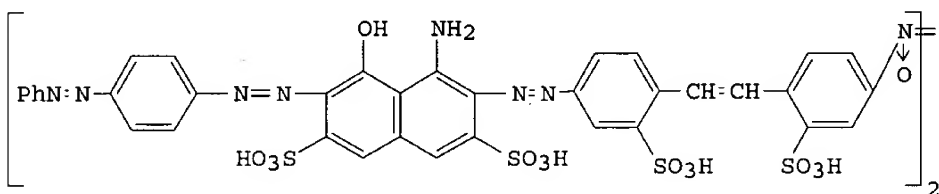
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2910458	A1	19800925	DE 1979-2910458	19790316
	EP 16975	A2	19801015	EP 1980-101044	19800303
	EP 16975	A3	19810114		
	EP 16975	B1	19830817		
	R: CH, DE, FR, GB, IT				
	US 4297278	A	19811027	US 1980-128201	19800307
	JP 55125158	A2	19800926	JP 1980-31702	19800314
	BR 8001545	A	19801111	BR 1980-1545	19800314
	ES 489579	A1	19820601	ES 1980-489579	19800314
PRAI	DE 1979-2910458		19790316		

GI



I



II

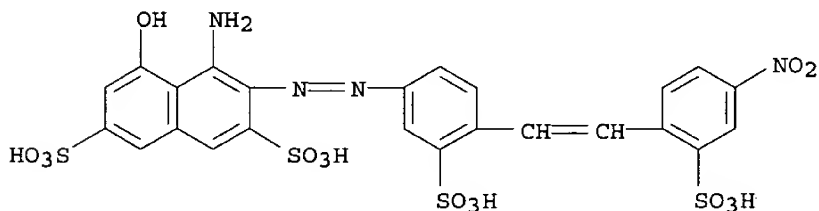
AB Azo dyes (I; R = a diazo component residue; n = 1, 2) are manufd. and are used to dye cotton in dark green shades. Thus, 4-amino-4'-nitro-2,2'-stilbenedisulfonic acid mono-Na salt [74121-28-1] was diazotized and coupled with H acid monosodium salt [5460-09-3] and to this intermediate was added diazotized 4-aminoazobenzene [60-09-3] to give a nitro disazo intermediate [75935-94-3]. The intermediate was treated with aq. NaOH contg. glucose to give II [75935-95-4].

IT 75935-89-6P 75935-92-1P 75935-94-3P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent) (prepn. and redn. of)

RN 75935-89-6 CAPLUS

CN 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-3-[[4-[2-(4-nitro-2-sulphophenyl)ethenyl]-3-sulphophenyl]azo]-, monosodium salt (9CI) (CA INDEX NAME)



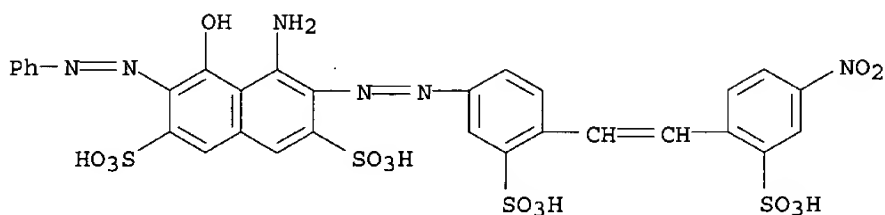
Na

RN 75935-92-1 CAPLUS

CN 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-3-[[4-[2-(4-nitro-2-

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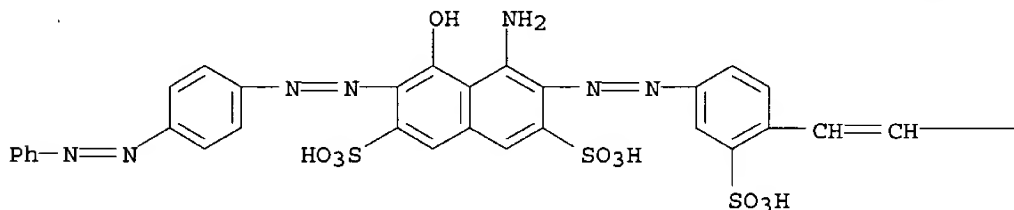
sulfophenyl)ethenyl]-3-sulfophenyl]azo]-6-(phenylazo)-(9CI) (CA INDEX NAME)



RN 75935-94-3 CAPLUS

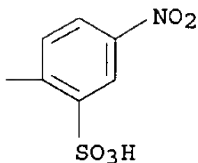
CN 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-3-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]-6-[[4-(phenylazo)phenyl]azo]-, disodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



● 2 Na

PAGE 1-B



L22 ANSWER 57 OF 86 CAPLUS COPYRIGHT 2003 ACS

AN 1980:165203 CAPLUS

DN 92:165203

TI Dyes for dyeing and printing natural and synthetic polyamides, wool or leather

IN Hildreth, John David; Tschopp, Anton Ferdinand; Evans, David George

PA Ciba-Geigy A.-G., Switz.

SO Ger. Offen., 17 pp.

CODEN: GWXXBX

DT Patent

LA German

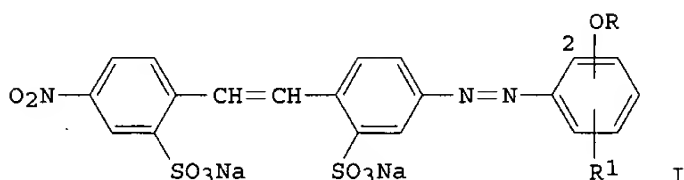
FAN.CNT 1

PATENT NO.

KIND DATE

APPLICATION NO. DATE

PI	DE 2922758	A1	19791213	DE 1979-2922758	19790605
	US 4266939	A	19810512	US 1979-45522	19790604
	CH 642099	A	19840330	CH 1979-5205	19790605
	FR 2428063	A1	19800104	FR 1979-14489	19790606
	FR 2428063	B1	19830729		
	GB 2026008	A	19800130	GB 1979-19725	19790606
	GB 2026008	B2	19820818		
	US 4251492	A	19810217	US 1979-57153	19790712
	US 4276224	A	19810630	US 1979-57157	19790712
PRAI	GB 1978-26466		19780607		
GI					



AB Azo stilbenedisulfonic acid dyes (I; R = H, C1-6 alkyl; R1 = C1-6 alkyl; RO and R1 are para) are prep'd. and used to **dye** or print polyamide fibers level yellow shades. Thus, 4-amino-4'-nitro-2,2'-stilbenedisulfonic acid [119-72-2] in aq. NaOH and NaNO2 was treated with HCl and then coupled with p-cresol [106-44-5] to give I (OR = 2-OH, R1 = 5-Me) [73281-07-9]. Other I were similarly prep'd.

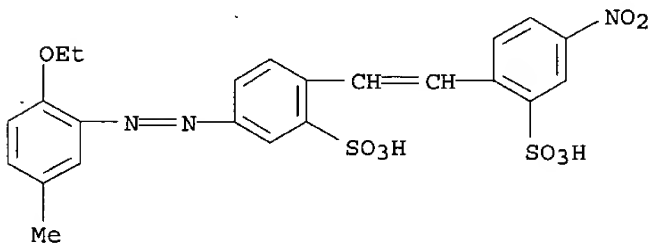
IT 73281-06-8

RL: USES (Uses)

(**dye**, for nylon carpets)

RN 73281-06-8 CAPLUS

CN Benzenesulfonic acid, 5-[(2-ethoxy-5-methylphenyl)azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]-, disodium salt (9CI) (CA INDEX NAME)



● 2 Na

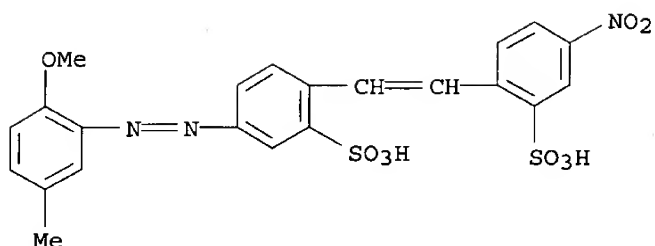
IT 73281-05-7 73281-07-9

RL: USES (Uses)

(**dye**, for nylon carpets, prepn. of)

RN 73281-05-7 CAPLUS

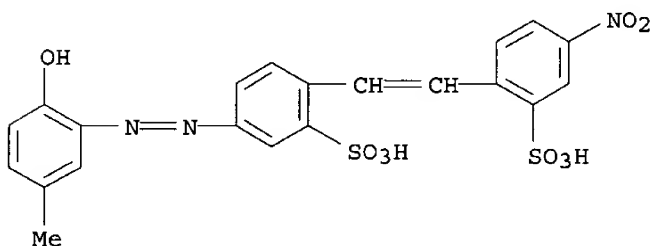
CN Benzenesulfonic acid, 5-[(2-methoxy-5-methylphenyl)azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]-, disodium salt (9CI) (CA INDEX NAME)



● 2 Na

RN 73281-07-9 CAPLUS

CN Benzenesulfonic acid, 5-[(2-hydroxy-5-methylphenyl)azo]-2-[2-(4-nitro-2-sulphophenyl)ethenyl]-, disodium salt (9CI) (CA INDEX NAME)



● 2 Na

L22 ANSWER 58 OF 86 CAPLUS COPYRIGHT 2003 ACS

AN 1979:31850 CAPLUS

DN 90:31850

TI Physicochemical and mechanical properties of systems made of gelatin, dye, and polyelectrolytes

AU Boiko, O. K.; Terekhova, G. R.; Burdygina, G. I.; Pruglo, N. V.; Spasokukotskii, N. S.; Bongard, S. A.; Kozlov, P. V.

CS Vses. Nauchno-Issled. Kinofotoinst., Moscow, USSR

SO Zhurnal Nauchnoi i Prikladnoi Fotografii i Kinematografii (1978), 23(4), 278-86

CODEN: ZNPFAG; ISSN: 0044-4561

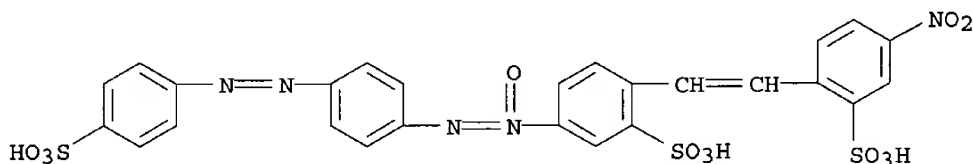
DT Journal

LA Russian

AB Impact strength R and internal stress of films made from binary systems gelatin (I)-dye and I-polyelectrolyte (a dye fixing agent) and a ternary system I - dye - polyelectrolyte were related to the changes of pH, sp. rotation at 546 nm, and viscosity in the dild. solns. of these systems. Poly(vinylbenzyltriethylammonium chloride), poly(N-methyl-2-vinylpyridinium p-toluenesulfonate), the Na salt of polystyrene sulfonate, and the Na salt of polyacrylic acid as the polyelectrolytes and Direct Photoresistant Pink S, Direct Photoresistant Orange 2Zh, and Hydrotype Blue 2 as the dyes were studied. While the internal stress was not affected by additives, R decreased in the presence of dyes and/or polyelectrolytes. The complex formation was shown by changes of viscosity and sp. rotation and its effect on R can be explained

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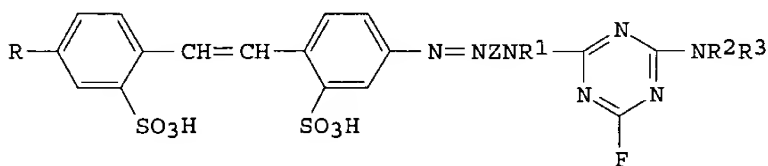
by destruction of the more ordered helical form of I.
 IT **39363-31-0**
 RL: USES (Uses)
 (color photog. dye-mordant systems contg., physicochem. and
 mech. properties of)
 RN 39363-31-0 CAPLUS
 CN Benzenesulfonic acid, 2-[2-(4-nitro-2-sulfophenyl)ethenyl]-5-[[4-[(4-sulfophenyl)azo]phenyl]-NNO-azoxy]-, trisodium salt (9CI) (CA INDEX NAME)



● 3 Na

L22 ANSWER 59 OF 86 CAPLUS COPYRIGHT 2003 ACS
 AN 1978:106745 CAPLUS
 DN 88:106745
 TI Fiber-reactive azo dyes
 IN Seitz, Karl
 PA Ciba-Geigy A.-G., Switz.
 SO Ger. Offen., 32 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2728354	A1	19771229	DE 1977-2728354	19770623
	DE 2728354	C2	19870430		
	CH 627205	A	19811231	CH 1976-8157	19760625
	GB 1549134	A	19790725	GB 1977-26423	19770623
	CS 191900	P	19790731	CS 1977-474	19770623
	CS 191889	P	19790731	CS 1977-4162	19770623
	FR 2355887	A1	19780120	FR 1977-19526	19770624
	FR 2355887	B1	19800307		
	JP 53002533	A2	19780111	JP 1977-76447	19770625
	JP 60029747	B4	19850712		
PRAI	CH 1976-8157		19760625		



I

AB Fiber-reactive azo dyes (I, R = H, halogen, NO2, optionally substituted amino, acylamino, optionally sulfo-substituted naphtho(1',2',4,5)triazolyl residue, 3-substituted 4-arylazo-5-oxo-1-pyrazolyl residue; R1, R2 = H,

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C1-4 alkyl; R3 = H, aliph., arom., or heterocyclic residue; Z = coupling component residue) are prepd. and used to dye cotton fast yellow shades. Thus, 2-amino-1,4-benzenedisulfonic acid [98-44-2] was reacted with cyanuric fluoride [675-14-9] and the unisolated difluoro(disulfoanilino)-s-triazine treated with 4-(4-aminophenylazo)-4'-aminostilbene-2,2'-disulfonic acid [65740-42-3] to give I[R = [4-fluoro-6-(2,5-disulfoanilino)-s-triazin-2-yl]amino, R1 = R2 = H, R3 = 2,5-(HO3S)2C6H3, Z = p-C6H4] [65740-48-9].

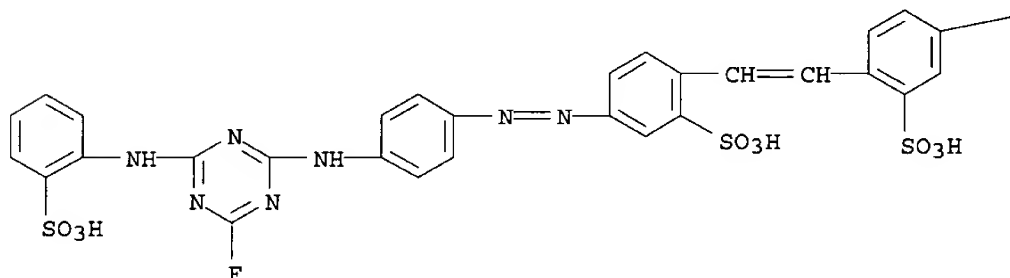
IT 65740-43-4

RL: TEM (Technical or engineered material use); USES (Uses)
(dye, for cotton, prepn. of)

RN 65740-43-4 CAPLUS

CN Benzenesulfonic acid, 5-[[4-[[4-fluoro-6-[(2-sulfophenyl)amino]-1,3,5-triazin-2-yl]amino]phenyl]azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]- (9CI)
(CA INDEX NAME)

PAGE 1-A



PAGE 1-B

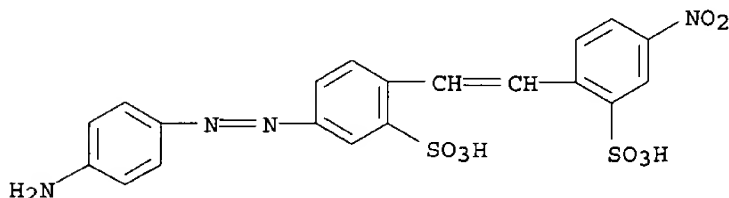
—NO₂

IT 65740-44-5

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with fluorotriazine deriv.)

RN 65740-44-5 CAPLUS

CN Benzenesulfonic acid, 5-[(4-aminophenyl)azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]- (9CI) (CA INDEX NAME)



L22 ANSWER 60 OF 86 CAPLUS COPYRIGHT 2003 ACS

AN 1978:512312 CAPLUS

DN 89:112312

TI Fiber-reactive azo dyes

PA Ciba-Geigy A.-G., Switz.

SO Belg., 29 pp.

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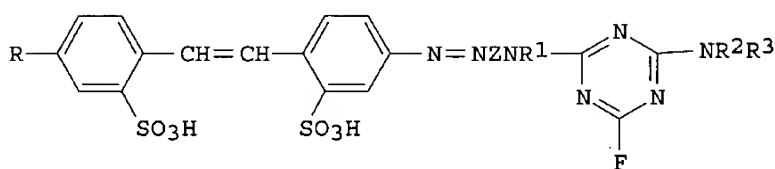
CODEN: BEXXAL

DT Patent

LA French

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	BE 856062	A1	19771227	BE 1977-178731	19770624
	CH 627205	A	19811231	CH 1976-8157	19760625
	GB 1549134	A	19790725	GB 1977-26423	19770623
	CS 191900	P	19790731	CS 1977-474	19770623
	CS 191889	P	19790731	CS 1977-4162	19770623
	FR 2355887	A1	19780120	FR 1977-19526	19770624
	FR 2355887	B1	19800307		
	JP 53002533	A2	19780111	JP 1977-76447	19770625
	JP 60029747	B4	19850712		
PRAI	CH 1976-8157		19760625		
GI					



AB Fiber-reactive azo dyes [I; R = H, halo, NO₂, NH₂ (optionally substituted), acylamino, naphthotriazolyl (optionally substituted), 3-substituted 4-(aryloxy)-5-pyrazolon-1-yl; R₁, R₂ = H, C1-4 alkyl; R₃ = H, alkyl, aryl, heterocyclic residue; Z = coupler residue] are prepd. and are used to dye cellulosic fibers fast yellow shades. Thus, 2-amino-1,4-benzenedisulfonic acid [98-44-2] was treated with cyanuric fluoride [675-14-9]; after the acylation was completed the soln. was poured into 4-(4-aminophenylazo)-4'-aminostilbene-2,2'-disulfonic acid [65740-42-3], and aq. NaOH was added to maintain the pH at 7-8 to give I [R = 4-(2,5-disulfoanilino)-6-fluoro-s-triazin-2-yl, R₁ = R₂ = H, R₃ = 2,5-(HO₃S)C₆H₃, Z = p-C₆H₄] [65740-48-9].

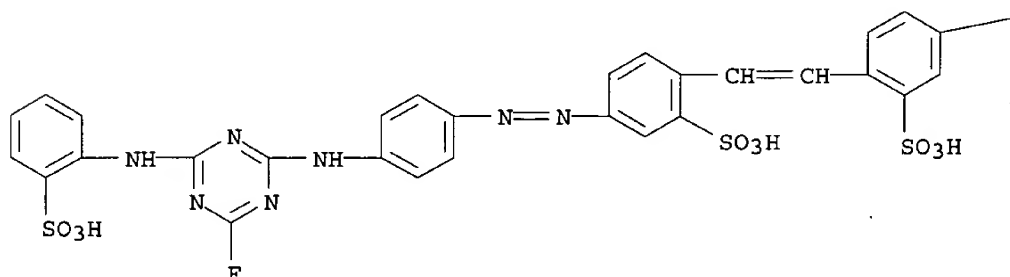
IT 65740-43-4

RL: TEM (Technical or engineered material use); USES (Uses)
(dye, for cotton, prepn. of)

RN 65740-43-4 CAPLUS

CN Benzenesulfonic acid, 5-[[4-[[4-fluoro-6-[(2-sulfophenyl)amino]-1,3,5-triazin-2-yl]amino]phenyl]azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]- (9CI)
(CA INDEX NAME)

PAGE 1-A



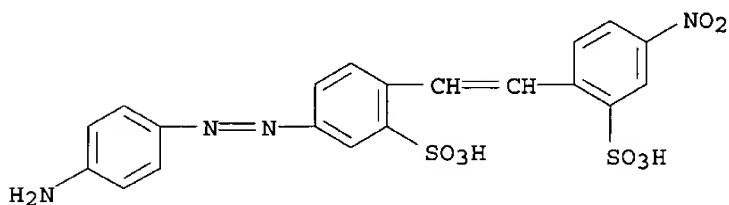
—NO₂

IT 65740-44-5

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with difluorotriazine deriv.)

RN 65740-44-5 CAPLUS

CN Benzenesulfonic acid, 5-[(4-aminophenyl)azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]- (9CI) (CA INDEX NAME)



L22 ANSWER 61 OF 86 CAPLUS COPYRIGHT 2003 ACS

AN 1977:56730 CAPLUS

DN 86:56730

TI Dyes for cellulose-containing textiles

IN Plant, David W.; Williams, David John

PA Imperial Chemical Industries Ltd., UK

SO Ger. Offen., 77 pp.

CODEN: GWXXBX

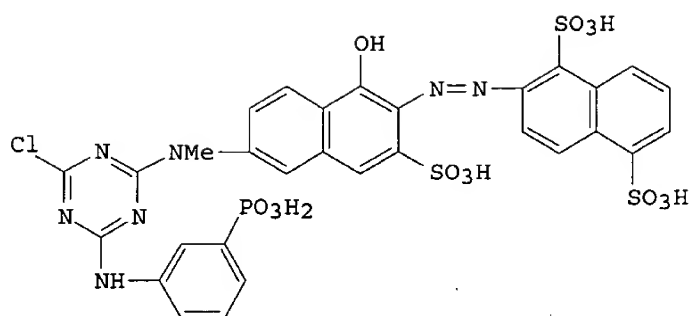
DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2616683	A1	19761028	DE 1976-2616683	19760415
	GB 1502684	A	19780301	GB 1975-15397	19750415
	ZA 7601908	A	19770330	ZA 1976-1908	19760330
	AU 497288	B2	19781207	AU 1976-12651	19760405
	BR 7602255	A	19761012	BR 1976-2255	19760413
	CS 189760	P	19790430	CS 1976-2441	19760413
	NL 7603952	A	19761019	NL 1976-3952	19760414
	FR 2307852	A1	19761112	FR 1976-11038	19760414
	FR 2307852	B1	19801205		
	DD 125539	C	19770427	DD 1976-192367	19760414
	ES 447017	A1	19790516	ES 1976-447017	19760414
	BE 840810	A1	19761015	BE 1976-166215	19760415
	CH 625267	A	19810915	CH 1976-4894	19760415
	ES 451996	A1	19771001	ES 1976-451996	19760930
	ES 451998	A1	19771001	ES 1976-451998	19760930
	ES 451997	A1	19780101	ES 1976-451997	19760930
PRAI	GB 1975-15397		19750415		
	GB 1976-672		19760108		
	GB 1976-2171		19760120		

GI



I

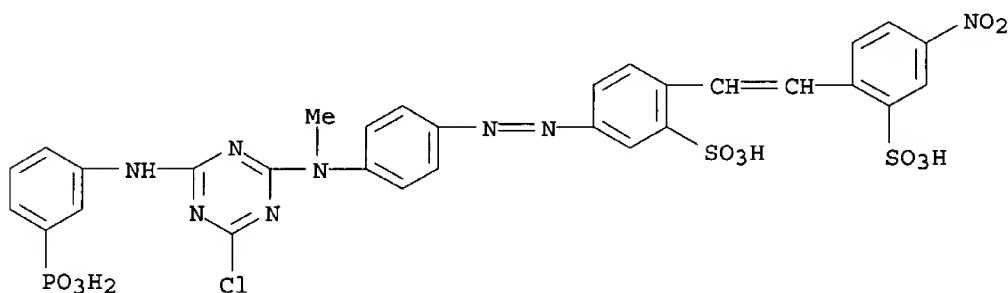
AB Fast dyes for cellulosic fibers are prepd. by bonding amino-substituted azo, anthraquinone, stilbene, or triphenodioxazine dyes through an s-triazine bridge to a group of general structure $N(R)ZPO_3H_2$, where $R = H$ or alkyl and $Z =$ alkylene or arylene; the triazine bridge also is substituted by a halo, amino, alkoxy, OH, or quaternary ammonium group. These dyes are applied (alone in the presence of disperse dyes) from acidic aq. media, followed by baking in the presence of cyanamide or dicyandiamide. A typical dye, the orange ammonium salt [61433-42-9] of I, was prepd. by successive reaction of cyanuric chloride [108-77-0] with 1,3,6,2-HO(HO₃S) (MeNH)C₁₀H₄N:NC₁₀H₅(SO₃H)-2,1,5 [61433-43-0] and m-H₂NC₆H₄PO₃H₂ [5427-30-5] followed by treatment with NH₄Cl.

IT 61433-17-8D, salts 61433-24-7

RL: TEM (Technical or engineered material use); USES (Uses)
(dye, for cellulosic fibers, prepn. of)

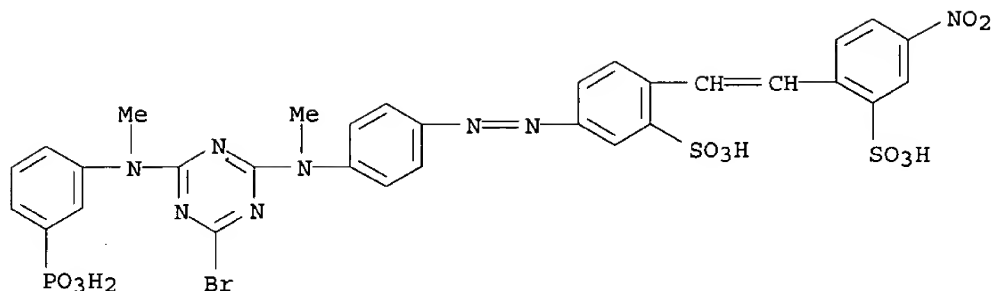
RN 61433-17-8 CAPLUS

CN Benzenesulfonic acid, 5-[[4-[[4-chloro-6-[(3-phosphonophenyl)amino]-1,3,5-triazin-2-yl]methylamino]phenyl]azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]-(9CI) (CA INDEX NAME)



RN 61433-24-7 CAPLUS

CN Benzenesulfonic acid, 5-[[4-[[4-bromo-6-[methyl(3-phosphonophenyl)amino]-1,3,5-triazin-2-yl]methylamino]phenyl]azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]-, ammonium salt (9CI) (CA INDEX NAME)



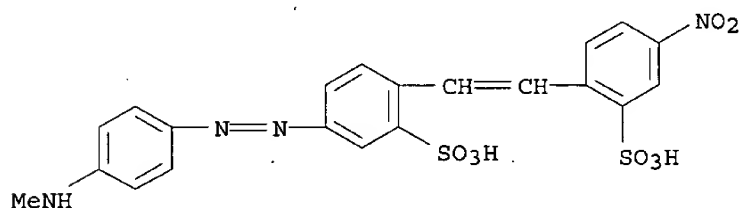
● x NH₃

IT 61433-34-9

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with cyanuric chloride)

RN 61433-34-9 CAPLUS

CN Benzenesulfonic acid, 5-[[4-(methylamino)phenyl]azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]-, monosodium salt (9CI) (CA INDEX NAME)



● Na

L22 ANSWER 62 OF 86 CAPLUS COPYRIGHT 2003 ACS

AN 1976:448535 CAPLUS

DN 85:48535

TI Dyes as beating agents for paper pulp

AU Bravar, M.; Turkalj, D.; Dzankic, N.; Iliskovic, N.

CS Technol. Fak., Univ. Zagreb, Zagreb, Yugoslavia

SO Wochenblatt fuer Papierfabrikation (1976), 104(8), 273-4

CODEN: WBPFAZ; ISSN: 0043-7131

DT Journal

LA German

AB Breaking length and bursting pressure of paper obtained by beating 70% soft and 30% hardwood pulp in the presence of direct dyes increased in the following order: Chlorantine Yellow [6272-71-5] < Benzo Brilliant Yellow (I) [3051-11-4] < Diamine Green G (II) [59620-58-5] < Diamine Black BH (III) [59597-62-5]. The max. tensile strength was obtained when II and III addns. were 3%. I gave highest double fold no. when pulp contg. 4% I was beaten for 75 min.

IT 6272-71-5

RL: USES (Uses)

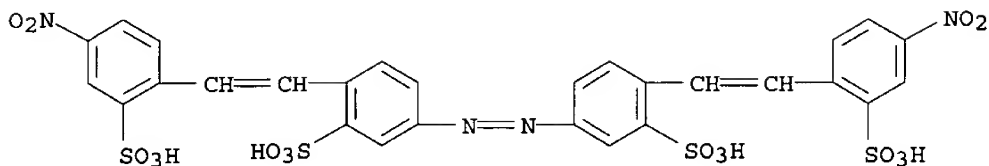
(paper prepd. in presence of, properties of)

RN 6272-71-5 CAPLUS

CN Benzenesulfonic acid, 3,3'-azobis[6-[2-(4-nitro-2-sulfophenyl)ethenyl]-,

09567863

tetrasodium salt (9CI) (CA INDEX NAME)



● 4 Na

L22 ANSWER 63 OF 86 CAPLUS COPYRIGHT 2003 ACS

AN 1975:113170 CAPLUS

DN 82:113170

TI Copper-containing azo triazine compounds

IN Waring, David R.

PA Imperial Chemical Industries Ltd.

SO U.S., 4 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3826799	A	19740730	US 1972-279788	19720811
PRAI	US 1972-279788		19720811		

GI For diagram(s), see printed CA Issue.

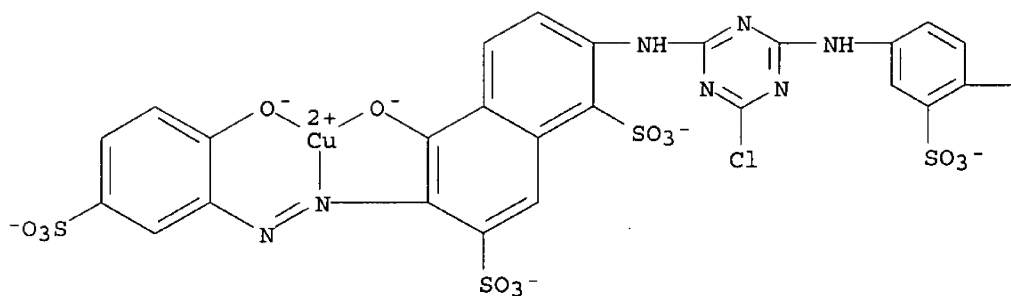
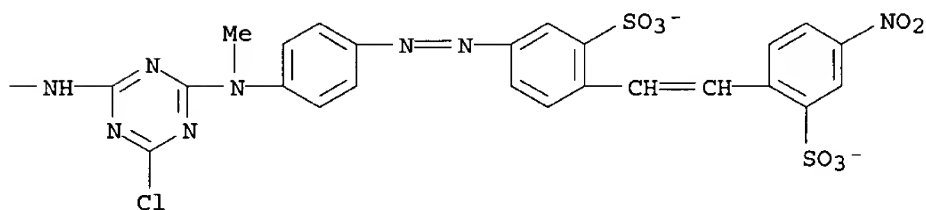
AB Fiber-reactive Cu-contg. azo dye (I) [54227-70-2] was prepd. by successive reaction of 1-hydroxy-6-amino-[(2-hydroxy-5-sulfophenyl)azo]-3,5-naphthalenedisulfonic acid Cu complex tri-Na salt [41113-69-3] with cyananic chloride, 1,4-phenylene-diamine-2-sulfonic acid [88-45-9], cyanuric chloride, and 4-nitro-4'-[[4-(methylamino)phenyl]azo]stilbene-2,2'-disulfonic acid di-Na salt [40401-44-3] and dyed cotton a light and wash-fast orange brown shade.

IT 54227-70-2P

RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. of)

RN 54227-70-2 CAPLUS

CN Cuprate(6-), [2-[[[4-chloro-6-[[[4-[[[4-chloro-6-[methyl[4-[[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]amino]-1,3,5-triazin-2-yl]amino]-3-sulfophenyl]amino]-1,3,5-triazin-2-yl]amino]-5-hydroxy-6-[(2-hydroxy-5-sulfophenyl)azo]-1,7-naphthalenedisulfonato(8-)]-], pentasodium hydrogen (9CI) (CA INDEX NAME)

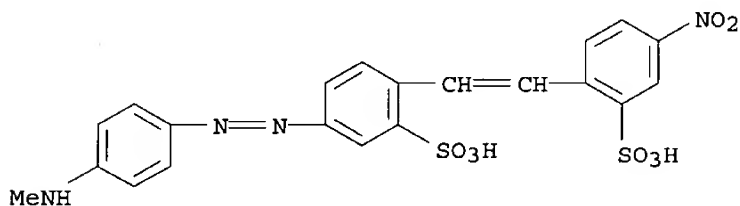
● H⁺● 5 Na⁺

IT 40401-44-3

RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, [(dichlorotriazinyl)amino] azo dye copper
 complex)

RN 40401-44-3 CAPLUS

CN Benzenesulfonic acid, 5-[[4-(methylanino)phenyl]azo]-2-[2-(4-nitro-2-
 sulfophenyl)ethenyl]-, disodium salt (9CI) (CA INDEX NAME)



● 2 Na

09567863

L22 ANSWER 64 OF 86 CAPLUS COPYRIGHT 2003 ACS
AN 1974:465198 CAPLUS
DN 81:65198
TI Copper complex reactive monochloro-s-triazine azo dye
IN Gregory, Peter
PA Imperial Chemical Industries Ltd.
SO U.S., 3 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

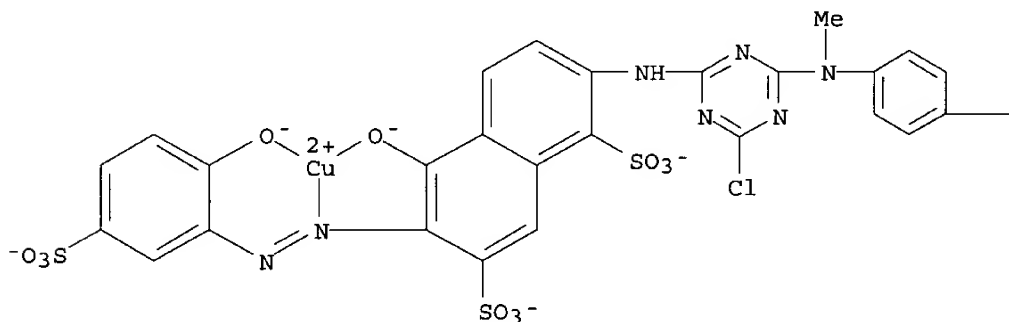
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3803121	A	19740409	US 1972-217951	19720114
PRAI	US 1972-217951		19720114		

AB Reactive disazo dye (I) [41113-60-4] was prepd. by condensing the 1:1 Cu complex of trisodium 2-amino-6-[(2-hydroxy-5-sulfonphenyl)azo]-5-hydroxy-1,7-naphthalenedisulfonate with cyanuric chloride, treating the dichlorotriazinyl intermediate with disodium 4-[[4-(methylamino)phenyl]azo]-4'-nitrostilbene-2,2'-disulfonate, and salting out. I dyed cellulosic textiles fast orange-brown shades.

IT 41113-60-4P
RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. of)

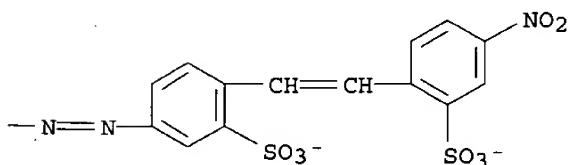
RN 41113-60-4 CAPLUS
CN Cuprate(5-), [2-[[4-chloro-6-[methyl[4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]amino]-1,3,5-triazin-2-yl]amino]-5-hydroxy-6-[(2-hydroxy-5-sulfophenyl)azo]-1,7-naphthalenedisulfonato(7-)]-, pentahydrogen (9CI) (CA INDEX NAME)

PAGE 1-A



● 5 H⁺

PAGE 1-B



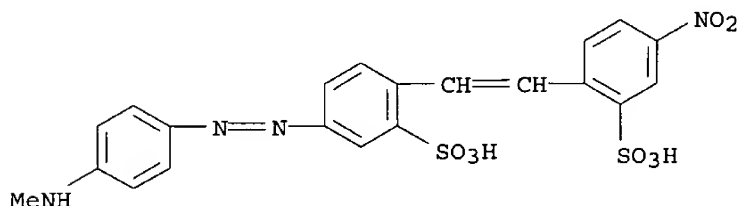
09567863

IT 40401-44-3

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with copper complex of [(hydroxysulphophenyl)azo] [(dichlorotriazinyl)amino]hydroxynaphthalenedisulfonic acid)

RN 40401-44-3 CAPLUS

CN Benzenesulfonic acid, 5-[[4-(methilamino)phenyl]azo]-2-[2-(4-nitro-2-sulphophenyl)ethenyl]-, disodium salt (9CI) (CA INDEX NAME)



●2 Na

L22 ANSWER 65 OF 86 CAPLUS COPYRIGHT 2003 ACS

AN 1974:493034 CAPLUS

DN 81:93034

TI Stilbene azo or azoxy dyes containing sulfonic acid groups

IN Pedrazzi, Reinhard

PA Sandoz Ltd.

SO Ger. Offen., 24 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	DE 2339574	A1	19740221	DE 1973-2339574	19730804
	DE 2339574	C3	19781221		
	CH 602867	A	19780815	CH 1972-11699	19720808
	FI 58149	B	19800829	FI 1973-2382	19730730
	FI 58149	C	19801210		
	SE 389676	B	19761115	SE 1973-10525	19730731
	NL 7310756	A	19740212	NL 1973-10756	19730803
	IT 990137	A	19750620	IT 1973-51833	19730803
	BE 803281	A1	19740206	BE 1973-134298	19730806
	JP 49132111	A2	19741218	JP 1973-87708	19730806
	JP 58027289	B4	19830608		
	US 3953419	A	19760427	US 1973-385756	19730806
	GB 1436965	A	19760526	GB 1973-37182	19730806
	ES 417604	A1	19760601	ES 1973-417604	19730806
	FR 2195660	A1	19740308	FR 1973-28776	19730807
	AU 7358995	A1	19750213	AU 1973-58995	19730807
	US 4126608	A	19781121	US 1975-641484	19751217
PRAI	CH 1972-11699		19720808		
	CH 1972-1477		19720309		
	CH 1972-3477		19720309		
	CH 1972-4042		19720317		
	US 1973-338321		19730305		
	US 1973-338339		19730305		
	US 1973-385756		19730806		

AB Ammonium salt-contg. azo- and azoxystilbene dyes (I, R = NH₂, m = 1, n =

09567863

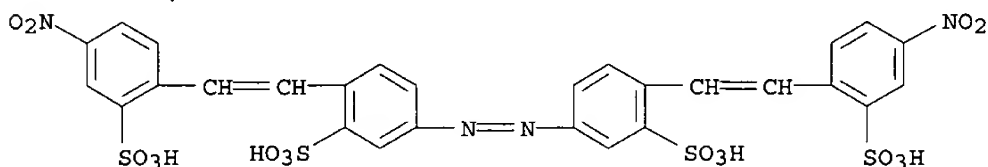
0, M = NH₄⁺, Li⁺; R = NO₂, m = 0, 1, n = 0, 1, M = NH₄⁺, Li⁺, Na⁺, Me₄N⁺) were prepd. and were used to dye paper in fast reddish yellow shades. Thus, a wet presscake of 4,2-O₂N(HO₃S)C₆H₃Me was treated with NH₄OH in H₂O to give ammonium 2-methyl-5-nitrobenzenesulfonate [51962-31-3]. This was treated with LiOH in H₂O at 50-55.deg. for 12 hr, neutralized to pH 7 with HCl stirred for 1 hr and filtered to give azoxy dye I (R = NO₂, m = n = 1; M = NH₄⁺-Li⁺ (1:1.4) [50381-05-0]).

IT 50381-04-9P 50381-05-0P 52109-35-0P

RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. of)

RN 50381-04-9 CAPLUS

CN Benzenesulfonic acid, 2-[2-(4-nitro-2-sulfophenyl)ethenyl]-5-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]-, ammonium lithium salt (9CI) (CA INDEX NAME)

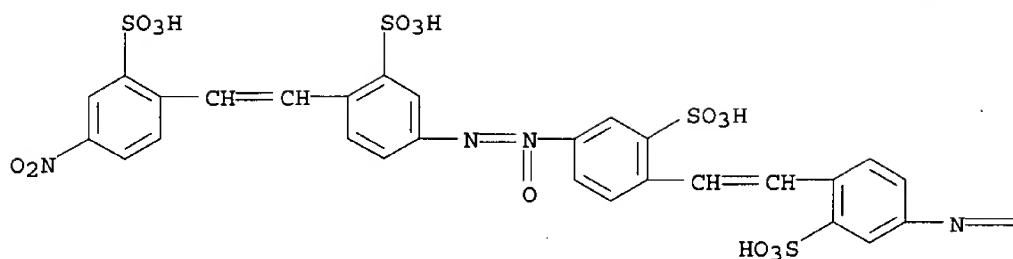


●x Li

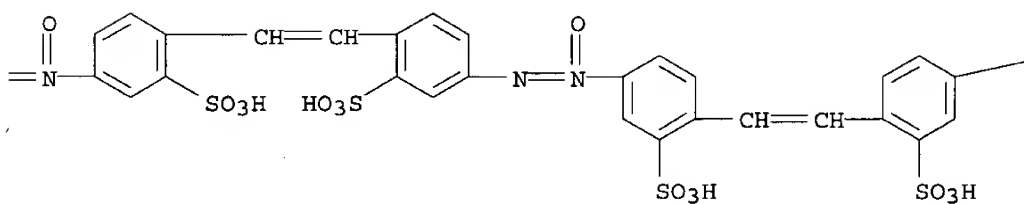
●x NH₃

RN 50381-05-0 CAPLUS

CN Benzenesulfonic acid, 2-[2-[4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]-NNO-azoxy]-2-sulfophenyl]ethenyl]-5-[[4-[2-[4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]-ONN-azoxy]-2-sulfophenyl]ethenyl]-3-sulfophenyl]-ONN-azoxy]-, ammonium lithium salt (9CI) (CA INDEX NAME)

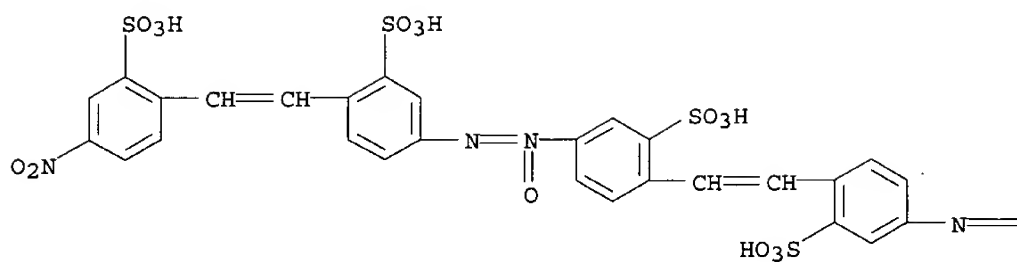


●x Li

●x NH₃-NO₂

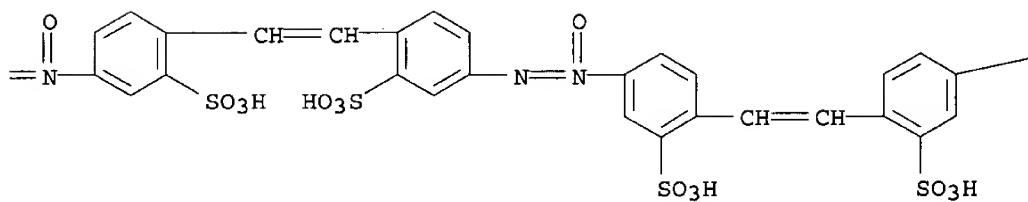
RN 52109-35-0 CAPLUS

CN Benzenesulfonic acid, 2-[2-[4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]-NNO-azoxy]-2-sulfophenyl]ethenyl]-5-[[4-[2-[4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]-ONN-azoxy]-2-sulfophenyl]ethenyl]-3-sulfophenyl]-ONN-azoxy]-, ammonium sodium salt (9CI) (CA INDEX NAME)



●x NH₃

●x Na



—NO₂

09567863

IN Barben, Ian K.; Parton, Brian; Yelland, Michael
 PA Imperial Chemical Industries Ltd.
 SO Brit., 28 pp.
 CODEN: BRXXAA
 DT Patent
 LA English
 FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 1327301	A	19730822	GB 1971-3092	19710419
	NL 7102679	A	19710906	NL 1971-2679	19710301
	ES 388802	A1	19730516	ES 1971-388802	19710302
	BR 7102001	A0	19730313	BR 1971-2001	19710402
	ES 391575	A1	19730616	ES 1971-391575	19710526
	ES 391576	A1	19730616	ES 1971-391576	19710526
	ES 391577	A1	19730616	ES 1971-391577	19710526
PRAI	GB 1970-9837		19700302		
	GB 1971-3092		19710125		
	ES 1971-388801		19710302		

AB Four s-triazine derivs. I (R = acyl radical or heterocyclic ring with a cellulose-reactive substituent, R1 = arylazo radical), fiber-reactive washfast red through blue on cellulosic textiles, were manufd. by treating cyanuric chloride (II) successively with aminobenzenesulfonic acids and aminoarylazo sulfonic acids. Thus, the product of condensing 5.62 parts di-Na 4-(4'-amino-2'-methylphenylazo)-4'-nitrostilbene-2,2'-disulfonate [50321-61-4] with 2.0 parts II in H2O at 0.5.deg. pH 6-7 was treated with 2.68 parts 1,3-phenylenediamine-4,6-disulfonic acid [137-50-8] at 35-40.deg. pH 5-6, and the product screened and added to 2.0 parts II in Me2CO-H2O at pH 6-7. The resultant dye (III) [35102-76-2] was pptd. on addn. of KH2PO4-Na2HPO4, pasted with the phosphate mixt., dried and applied in the presence of an acid binder to cellulosic materials to give reddish-yellow shades.

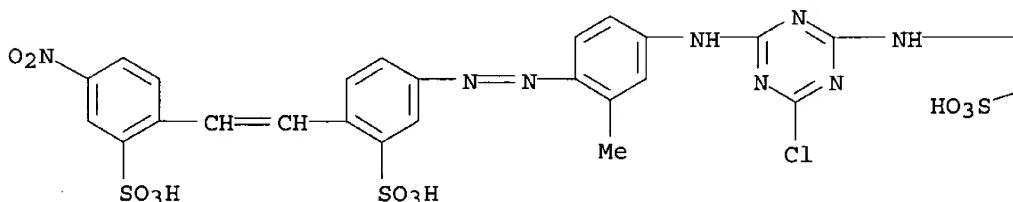
IT 35102-76-2P

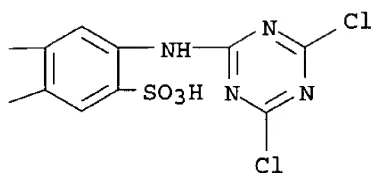
RL: IMF (Industrial manufacture); PREP (Preparation)
 (prepn. of)

RN 35102-76-2 CAPLUS

CN 1,3-Benzenedisulfonic acid, 4-[[[4-chloro-6-[[[3-methyl-4-[[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]amino]-1,3,5-triazin-2-yl]amino]-6-[(4,6-dichloro-1,3,5-triazin-2-yl)amino]-, disodium salt (9CI)
 (CA INDEX NAME)

PAGE 1-A



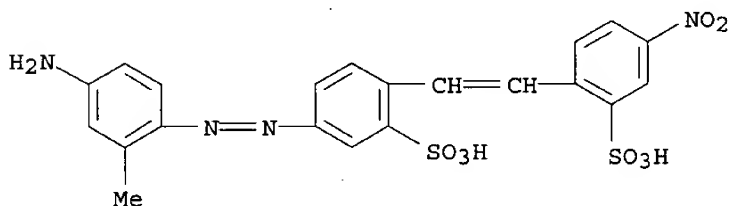


IT 50321-61-4

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with cyanuric chloride)

RN 50321-61-4 CAPLUS

CN Benzenesulfonic acid, 5-[(4-amino-2-methylphenyl)azo]-2-[(4-nitro-2-sulfophenyl)ethenyl]-, disodium salt (9CI) (CA INDEX NAME)



● 2 Na

L22 ANSWER 67 OF 86 CAPLUS COPYRIGHT 2003 ACS

AN 1974:28450 CAPLUS

DN 80:28450

TI Azostilbene dyes for paper

IN Pedrazzi, Reinhard

PA Sandoz Ltd.

SO Ger. Offen., 30 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	DE 2311073	A1	19730927	DE 1973-2311073	19730306
	DE 2311073	C2	19840517		
	CH 606290	A	19781031	CH 1972-4042	19720317
	JP 49013225	A2	19740205	JP 1973-26252	19730307
	JP 58027288	B4	19830608		
	SE 400303	B	19780320	SE 1973-3262	19730308
	NL 7303430	A	19730919	NL 1973-3430	19730312
	GB 1422971	A	19760128	GB 1973-11956	19730313
	BE 796821	A1	19730917	BE 1973-128830	19730315
	IT 979870	A	19740930	IT 1973-48839	19730315
	ES 412661	A1	19760601	ES 1973-412661	19730315
	AU 7353465	A1	19740919	AU 1973-53465	19730319
	US 3953419	A	19760427	US 1973-385756	19730806
	US 4126608	A	19781121	US 1975-641484	19751217
PRAI	CH 1972-4042		19720317		
	CH 1972-1477		19720309		

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CH 1972-3477 19720309
CH 1972-11699 19720808
US 1973-338321 19730305
US 1973-338339 19730305
US 1973-385756 19730806

AB The yellow to orange azostilbene dyes I (R = NO₂ or NH₂; R₁ = NMe₄, NMe₃CH₂CH₂OH, or Na; Q = N:N or N(O):N; n = 0 or 1) were prepd. and used for dyeing paper reddish yellow shades. Thus, 5,2-O₂NMeC₆H₃SO₃H and Me₄NOH were heated 1 hr at 55.deg. to give reddish yellow dye [I, R = NO₂, R₁ = NMe₄, Q = N(O):N; n = 1] [50275-50-8]. Similarly prepd. were 3 other I.

IT 50275-50-8P 50817-92-0P

RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. of)

RN 50275-50-8 CAPLUS

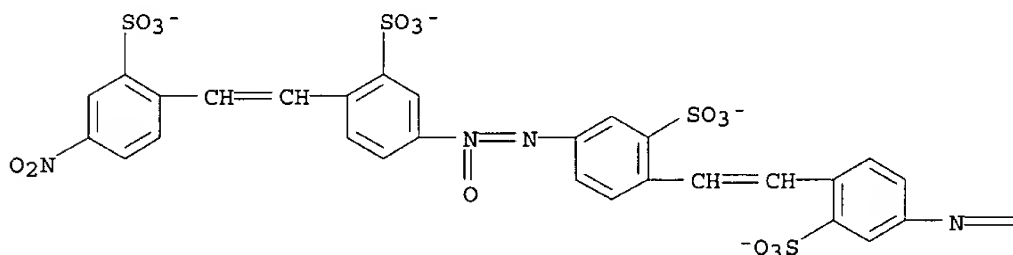
CN Methanaminium, N,N,N-trimethyl-, salt with 3,3'-azoxybis[6-[2-[4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]-ONN-azoxy]-2-sulfophenyl]ethenyl]benzenesulfonic acid] (8:1) (9CI) (CA INDEX NAME)

CM 1

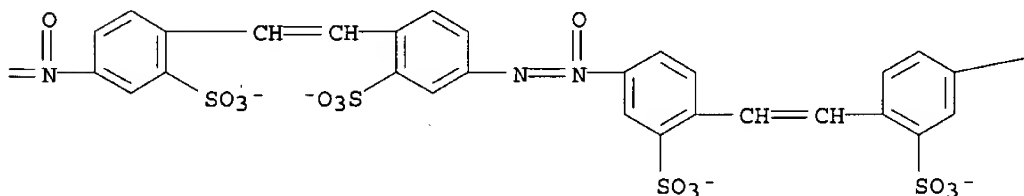
CRN 50576-73-3

CMF C56 H32 N8 O31 S8

PAGE 1-A



PAGE 1-B

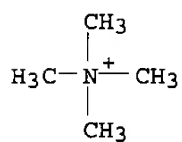


—NO_2

CM 2

CRN 51-92-3

CMF C4 H12 N



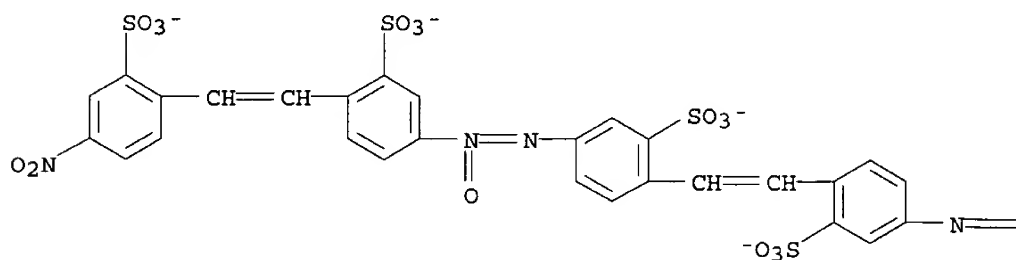
RN 50817-92-0 . CAPLUS

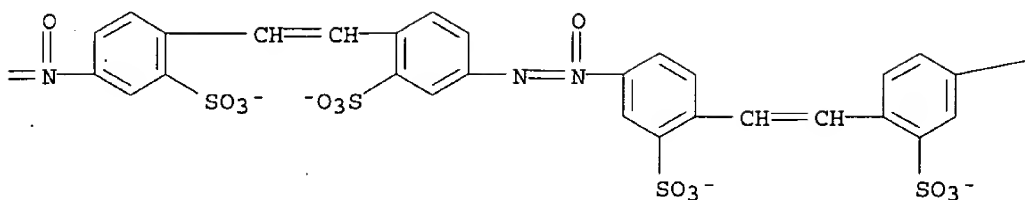
CN Ethanaminium, 2-hydroxy-N,N,N-trimethyl-, salt with 3,3'-azoxybis[6-[2-[4-[[4-[2-(4-nitro-2-sulphophenyl)ethenyl]-3-sulphophenyl]-ONN-azoxy]-2-sulphophenyl]ethenyl]benzenesulfonic acid] (8:1) (9CI) (CA INDEX NAME)

CM 1

CRN 50576-73-3

CMF C56 H32 N8 O31 S8



—NO₂

CM 2

CRN 62-49-7

CMF C5 H14 N O

Me₃⁺N—CH₂—CH₂—OH

L22 ANSWER 68 OF 86 CAPLUS COPYRIGHT 2003 ACS

AN 1974:554521 CAPLUS

DN 81:154521

TI Water-soluble azo dyes for paper

IN Pedrazzi, Reinhard

PA Sandoz Ltd.

SO Ger. Offen., 22 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2311072	A1	19730913	DE 1973-2311072	19730306
	DE 2311072	C3	19781221		
	CH 569065	A	19751114	CH 1972-3477	19720309
	SE 389125	B	19761025	SE 1973-2899	19730301
	FI 57773	B	19800630	FI 1973-651	19730302
	FI 57773	C	19801010		
	GB 1420381	A	19760107	GB 1973-10714	19730306
	JP 48102125	A2	19731222	JP 1973-26251	19730307

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IT 979778	A	19740930	IT 1973-48695	19730309
US 3953419	A	19760427	US 1973-385756	19730806
PRAI CH 1972-3477		19720309		
CH 1972-4042		19720317		
CH 1972-11699		19720808		
US 1973-338321		19730305		
US 1973-338339		19730305		

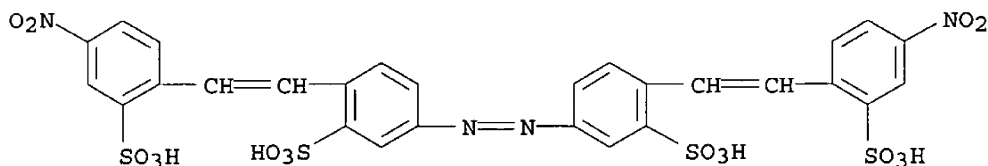
AB The watersol. $\text{NH}_4\text{-Li}$ salts of greenish yellow **dye** (I) [16473-79-3], reddish yellow **dye** (II) [16473-78-2], and orange **dye** (III) [53179-20-7] were prepd. and used for dyeing paper light- and wetfast shades. Thus, $\text{LiOH}\cdot\text{H}_2\text{O}$ was added to 2,5-Me(O_2N) $\text{C}_6\text{H}_3\text{SO}_3\text{H}$, heated 1 hr at 60-5.deg., ice and H_2O added, the pH adjusted to 7 with 30% HCl , the mixt. heated to 75-80.deg. and NH_4Cl added to give the NH_4Li salt of I of $\text{NH}_4^+\text{-Li}^+$ ratio 2:1. Similarly prepd. were II and III.

IT 50381-04-9P 50381-05-0P

RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. of)

RN 50381-04-9 CAPLUS

CN Benzenesulfonic acid, 2-[2-(4-nitro-2-sulfophenyl)ethenyl]-5-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]-, ammonium lithium salt (9CI) (CA INDEX NAME)

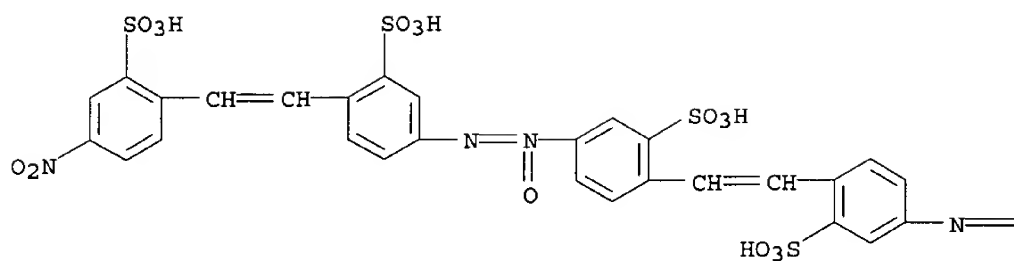


●x Li

●x NH_3

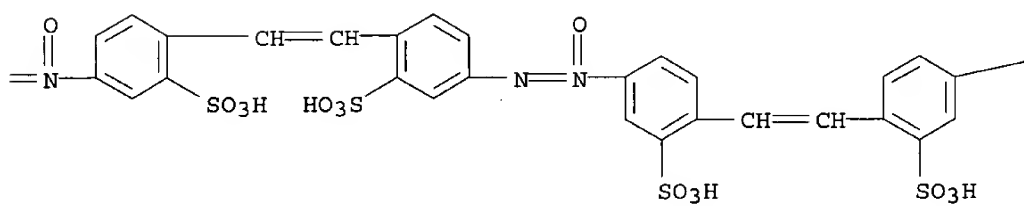
RN 50381-05-0 CAPLUS

CN Benzenesulfonic acid, 2-[2-[4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]-NNO-azoxy]-2-sulfophenyl]ethenyl]-5-[[4-[2-[4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]-ONN-azoxy]-2-sulfophenyl]ethenyl]-3-sulfophenyl]-ONN-azoxy]-, ammonium lithium salt (9CI) (CA INDEX NAME)



●x Li

●x NH₃



—NO₂

09567863

PA Imperial Chemical Industries Ltd.

SO Ger. Offen., 18 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2305223	A1	19730906	DE 1973-2305223	19730202
	IT 983426	A	19741031	IT 1973-19755	19730129
	FR 2173054	A1	19731005	FR 1973-5900	19730220
	JP 48096619	A2	19731210	JP 1973-21135	19730221

PRAI GB 1972-7842 19720221

AB The dye (I) [49556-26-5] was prepd. by reaction of di-Na 4-nitro-4'-(4-amino-2-methyl-5-methoxyphenylazo)-2,2'-stilbenedisulfonate with cyanuric chloride (II) and treatment of the product with 2,6,8-H₂NC10H₅(SO₃Na)₂. Reaction of Na 3-[(2,4-dichloro-s-triazin-6-yl)amino]benzenesulfonate (prepd. from metanilic acid and II) with di-Na 4-nitro-4'-(4-amino-2-methylphenylazo)-2,2'-stilbenedisulfonate gave the dye (III) [49556-27-6]. I and III were useful in dyeing cellulosic textiles reddish yellow shades fast to hypochlorite bleaching, washing, and light.

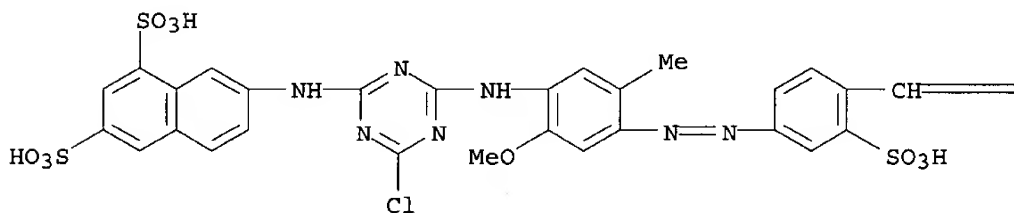
IT 49556-26-5P 49556-27-6P

RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. of)

RN 49556-26-5 CAPLUS

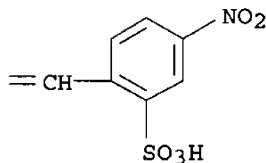
CN 1,3-Naphthalenedisulfonic acid, 7-[[4-chloro-6-[[2-methoxy-5-methyl-4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]amino]-1,3,5-triazin-2-yl]amino]-, tetrasodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



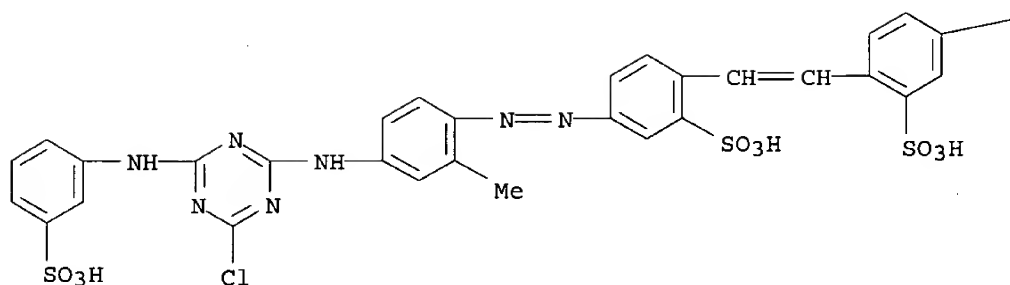
● 4 Na

PAGE 1-B



RN 49556-27-6 CAPLUS

CN Benzenesulfonic acid, 5-[[4-[[4-chloro-6-[(3-sulfophenyl)amino]-1,3,5-triazin-2-yl]amino]-2-methylphenyl]azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]-, trisodium salt (9CI) (CA INDEX NAME)



●3 Na

—NO₂

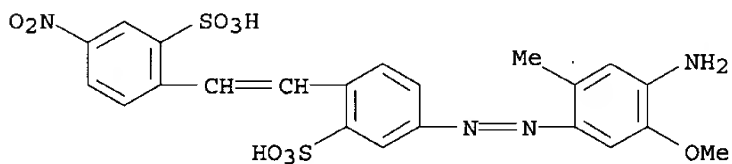
IT 50671-36-8

RL: USES (Uses)

(reaction with cyanuric chloride)

RN 50671-36-8 CAPLUS

CN Benzenesulfonic acid, 5-[(4-amino-5-methoxy-2-methylphenyl)azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]-, disodium salt (9CI) (CA INDEX NAME)



●2 Na

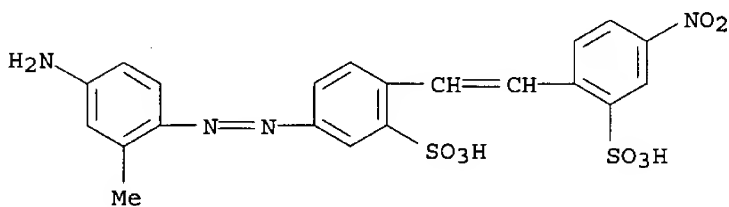
IT 50671-37-9

RL: USES (Uses)

(reaction with sodium [(dichlorotriazinyl)amino]benzenesulfonate)

RN 50671-37-9 CAPLUS

CN Benzenesulfonic acid, 5-[(4-amino-2-methylphenyl)azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]- (9CI) (CA INDEX NAME)



L22 ANSWER 70 OF 86 CAPLUS COPYRIGHT 2003 ACS

AN 1973:443651 CAPLUS

DN 79:43651

TI Fiber-reactive azo dyes

IN Waring, David Richard

PA Imperial Chemical Industries Ltd.

SO Ger. Offen., 14 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2244541	A1	19730315	DE 1972-2244541	19720911
	IT 964154	A	19740121	IT 1972-28380	19720822
	CH 570447	A	19751215	CH 1972-13100	19720906
	FR 2152793	A1	19730427	FR 1972-31954	19720908
	JP 48037427	A2	19730602	JP 1972-91165	19720911
PRAI	GB 1971-42356		19710910		

AB Two title dyes, wash-, light-, and bleachingfast green on cellulose textiles, were prepd. Thus, reaction of the tetra-Na salt of the Cu complex of 8-amino-1-hydroxy-2-[(1-hydroxy-4,8-disulfo-2-naphthyl)azo]-3,6-naphthalenedisulfonic acid with cyanuric chloride at 0-5.deg. and pH 6.0-6.5 and heating with di-Na 4-nitro-4'-[[4-(methylamino)phenyl]azo]-2,2'-stilbenedisulfonate for 18 hr at 40.deg. gave the dye (I, R = H, triazinylamino in 8 position, SO₃H in 6 position) [40453-16-5]. Similarly prepd. was the dye (I, R = NO₂, triazinylamino in 6-position, SO₃H in 5 position) [40349-64-2].

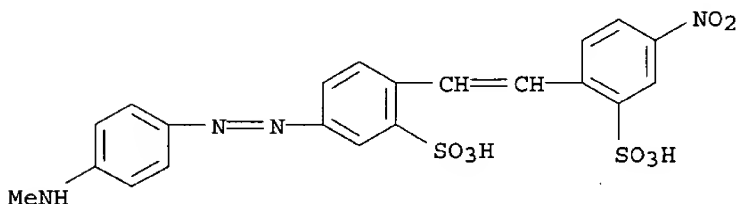
IT 40401-44-3

RL: USES (Uses)

(in manuf. of reactive azo dyes)

RN 40401-44-3 CAPLUS

CN Benzenesulfonic acid, 5-[[4-(methylamino)phenyl]azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]-, disodium salt (9CI) (CA INDEX NAME)



● 2 Na

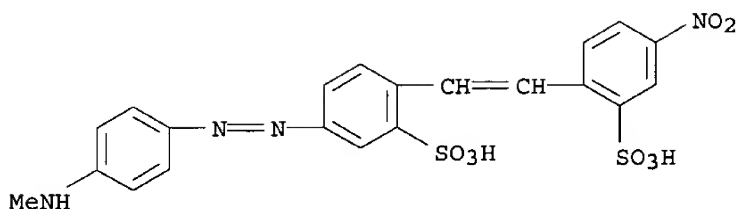
IT 42986-15-2

RL: USES (Uses)

(in manuf. of reactive dyes)

RN 42986-15-2 CAPLUS

CN Benzenesulfonic acid, 5-[[4-(methylamino)phenyl]azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]- (9CI) (CA INDEX NAME)



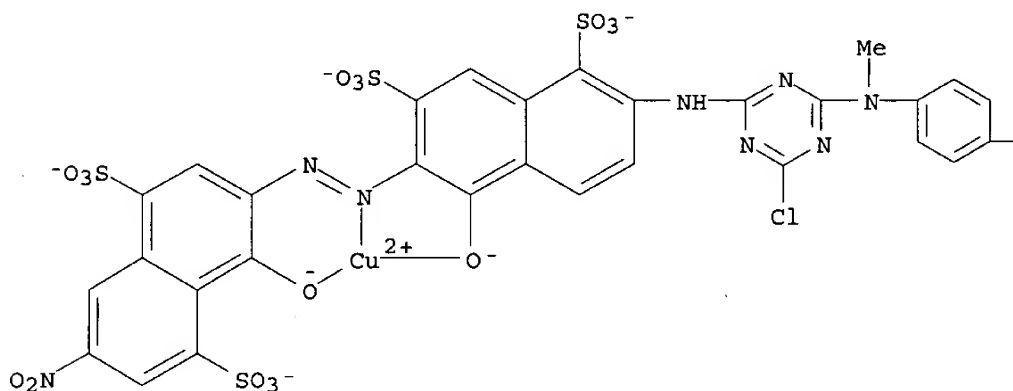
IT 40349-64-2P 40453-16-5P

RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. of)

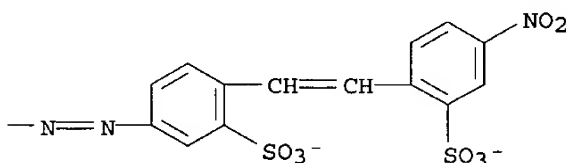
RN 40349-64-2 CAPLUS

CN Cuprate(6-), [3-[[6-[[4-chloro-6-[methyl[4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]amino]-1,3,5-triazin-2-yl]amino]-1-hydroxy-3,5-disulfo-2-naphthalenyl]azo]-4-hydroxy-7-nitro-1,5-naphthalenedisulfonato(8-)]-, hexasodium (9CI) (CA INDEX NAME)

PAGE 1-A

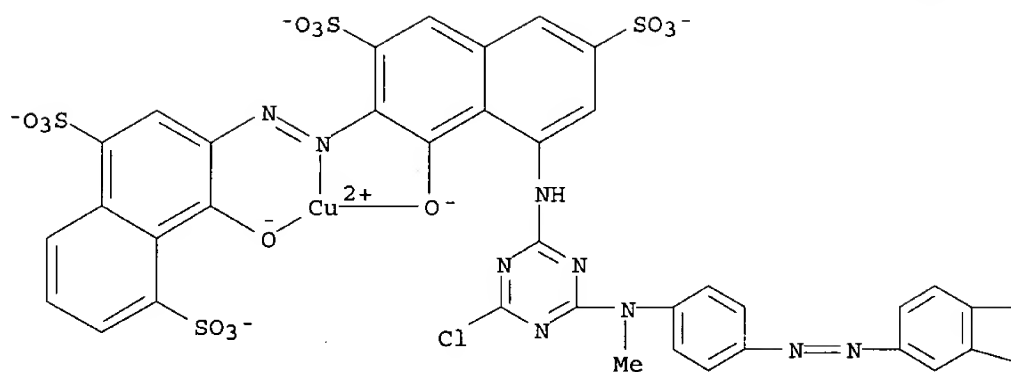
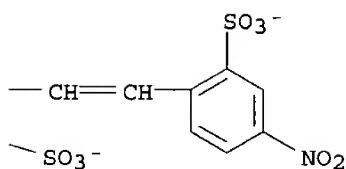
● 6 Na⁺

PAGE 1-B



RN 40453-16-5 CAPLUS

CN Cuprate(6-), [3-[[8-[[4-chloro-6-[methyl[4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]amino]-1,3,5-triazin-2-yl]amino]-1-hydroxy-3,6-disulfo-2-naphthalenyl]azo]-4-hydroxy-1,5-naphthalenedisulfonato(8-)]-, hexasodium (9CI) (CA INDEX NAME)

● 6 Na⁺

L22 ANSWER 71 OF 86 CAPLUS COPYRIGHT 2003 ACS

AN 1973:406758 CAPLUS

DN 79:6758

TI Fiber-reactive azo dye

IN Waring, David Richard

PA Imperial Chemical Industries Ltd.

SO Ger. Offen., 14 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2244539	A1	19730315	DE 1972-2244539	19720911
	IT 964180	A	19740121	IT 1972-28412	19720823
	CH 570448	A	19751215	CH 1972-13101	19720906
	FR 2152825	A1	19730427	FR 1972-32039	19720908
	JP 48037429	A2	19730602	JP 1972-90309	19720908

09567863

PRAI GB 1971-42357

19710910

AB Reaction of the tetra-Na salt of the Cu complex of 6-amino-1-hydroxy-2-[2-hydroxy-5-methoxy-4-(phenylazo)phenylazo]naphthalene-2'',3,5,5''-tetrasulfonic acid with cyanuric chloride at 0-5.deg. and pH 6-7 and heating with di-Na 4-nitro-4'-[4-(methylamino)phenylazo]stilbene-2,2'-disulfonate 18 hr at 40.deg. gave the **dye** (I) [38775-72-3], wash-, light-, and bleachingfast dark shades on cellulose textiles.

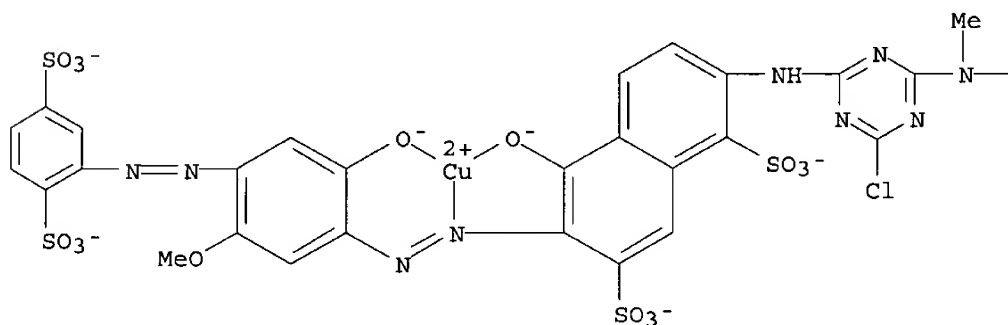
IT **42724-45-8P**

RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. of)

RN 42724-45-8 CAPLUS

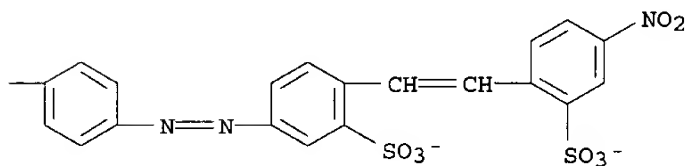
CN Cuprate(6-), [2-[[6-chloro-4-[methyl[4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]amino]-1,3,5-triazin-2-yl]amino]-6-[[4-[(2,5-disulfophenyl)azo]-2-hydroxy-5-methoxyphenyl]azo]-5-hydroxy-1,7-naphthalenedisulfonato(8-)]-, hexahydrogen (9CI) (CA INDEX NAME)

PAGE 1-A



● 6 H⁺

PAGE 1-B

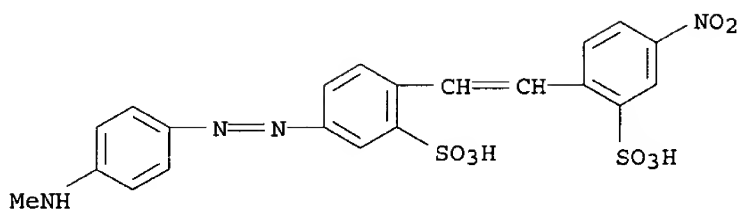


IT **40401-44-3**

RL: USES (Uses)
(reaction with chlorotriazine-contg. azo dyes)

RN 40401-44-3 CAPLUS

CN Benzenesulfonic acid, 5-[[4-(methylamino)phenyl]azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]-, disodium salt (9CI) (CA INDEX NAME)



● 2 Na

L22 ANSWER 72 OF 86 CAPLUS COPYRIGHT 2003 ACS

AN 1973:406759 CAPLUS

DN 79:6759

TI Azo dye

IN Waring, David Richard

PA Imperial Chemical Industries Ltd.

SO Ger. Offen., 23 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2244538	A1	19730322	DE 1972-2244538	19720911
	IT 968215	A	19740320	IT 1972-28324	19720819
	CH 570445	A	19751215	CH 1972-13098	19720906
	FR 2152791	A1	19730427	FR 1972-31952	19720908
	JP 48037425	A2	19730602	JP 1972-91163	19720911
PRAI	GB 1971-42354		19710910		

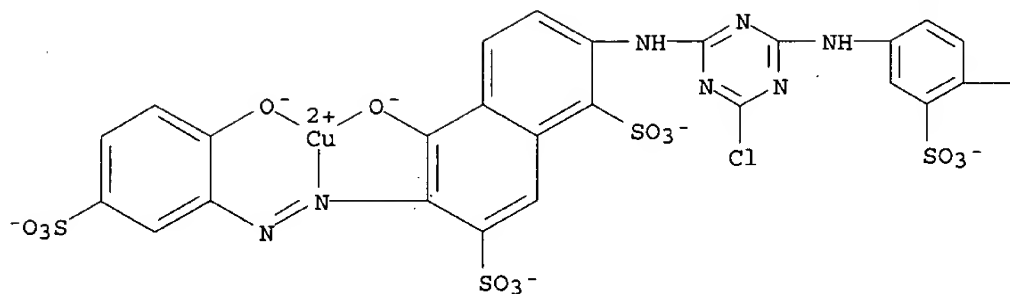
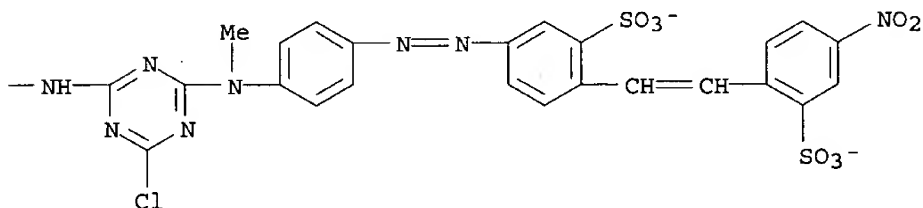
AB Successive reaction of the Cu complex of the tri-Na salt of 6-amino-2-(2-hydroxy-5-sulfophenylazo)-3,5-disulfo-1-naphthol with cyanuric chloride (I), 2,5-(H₂N)₂C₆H₃SO₃H, I, and di-Na 4-nitro-4'-[4-(methylamino)phenylazo]-2,2'-stilbenedisulfonate gave the fiber reactive dye (II) [37717-67-2], light- and washfast orange-brown on cotton.

IT 42744-71-8P

RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. of)

RN 42744-71-8 CAPLUS

CN Cuprate(6-), [2-[[4-chloro-6-[[4-[[4-chloro-6-[methyl[4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]amino]-1,3,5-triazin-2-yl]amino]-3-sulfophenyl]amino]-1,3,5-triazin-2-yl]amino]-5-hydroxy-6-[(2-hydroxy-5-sulfophenyl)azo]-1,7-naphthalenedisulfonato(8-)]-, hexasodium (9CI) (CA INDEX NAME)

● 6 Na⁺

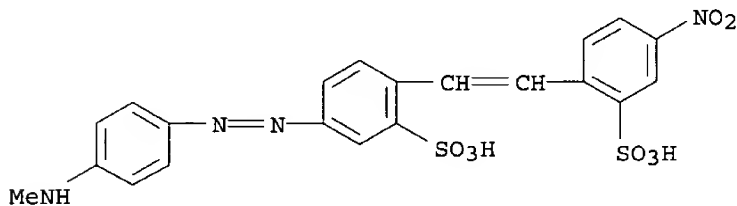
IT 40401-44-3

RL: USES (Uses)

(reaction with copper complex of azo dye contg.
chlorotriazinyl groups)

RN 40401-44-3 CAPLUS

CN Benzenesulfonic acid, 5-[[4-(methyamino)phenyl]azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]-, disodium salt (9CI) (CA INDEX NAME)



● 2 Na

L22 ANSWER 73 OF 86 CAPLUS COPYRIGHT 2003 ACS

AN 1973:527284 CAPLUS

DN 79:127284

TI Stability of direct dyes during combined bleaching and dyeing processes

AU Gromova, O. V.; Romanova, M. G.

CS NIOPK, Moscow, USSR

SO Tekstil'naya Promyshlennost (Moscow, Russian Federation) (1973), (4), 57-9

09567863

CODEN: TTLPA2; ISSN: 0040-2397

DT Journal

LA Russian

AB The stability was tested of 50 direct dyes in solns. contg. NaOH 1.0, surfactants (such as OP-10) 0.4, Na silicate 6.0, and H2O2 3.0 which are used for the simultaneous dyeing and bleaching of cotton. The dyes were heated in the solns. at .sim.90.deg. for 45 min. Their stability was detd. by ascending paper chromatog. The following dyes gave unchanged chromatograms after testing: Lightfast Yellow K [3214-47-9], Lightfast Yellow O [39363-34-3], Lightfast Yellow 5K [39363-33-2], Lightfast Orange 2Zh [39363-31-0], Lightfast Orange 2K [39363-29-6], Lightfast Orange 5K [39363-30-9], Lightfast Scarlet 2Zh [39363-32-1], Lightfast Rose S [2829-43-8], Lightfast Turquoise [1330-38-7], Lightfast Blue [4399-55-7], Lightfast Black 2ZU [39363-27-4], Lightfast Diazo Black Z [39363-28-5], Chrysophenine [2870-32-8], Brilliant Orange [3626-36-6], Fast Orange [1325-35-5], and Violet S [38493-85-5].

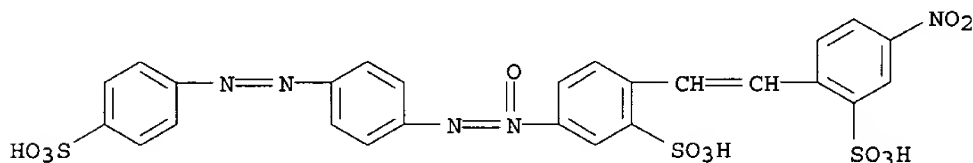
IT 39363-31-0

RL: PRP (Properties)

(stability of, during simultaneous bleaching-dyeing of cotton, detn. of)

RN 39363-31-0 CAPLUS

CN Benzenesulfonic acid, 2-[2-(4-nitro-2-sulfophenyl)ethenyl]-5-[[4-[(4-sulfophenyl)azo]phenyl]-NNO-azoxy]-, trisodium salt (9CI) (CA INDEX NAME)



● 3 Na

L22 ANSWER 74 OF 86 CAPLUS COPYRIGHT 2003 ACS

AN 1973:17601 CAPLUS

DN 78:17601

TI Reactive disazo dye

IN Gregory, Peter

PA Imperial Chemical Industries Ltd.

SO Ger. Offen., 15 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2203262	A	19720907	DE 1972-2203262	19720124
	GB 1351201	A	19740424	GB 1971-5420	19710225
	IT 946853	A	19730521	IT 1972-19725	19720122
	CH 564065	A	19750715	CH 1972-1421	19720201
	FR 2126348	A5	19721006	FR 1972-6096	19720223
	FR 2126348	B1	19760709		
PRAI	GB 1971-5420		19710225		

AB Reaction of the tri-Na salt of the 1:1 Cu complex of 6-amino-2-(2-hydroxy-5-sulfophenylazo)-1-hydroxynaphthalene-3,5-disulfonic acid with cyanuric chloride followed by reaction with di-Na 4-[4-(methylamino)phenylazo]-4'-nitrostilbene-2,2'-disulfonate gave the reactive disazo dye (I)

09567863

[37528-73-7], wash-, light-, and bleachfast orange brown on cellulose fibers.

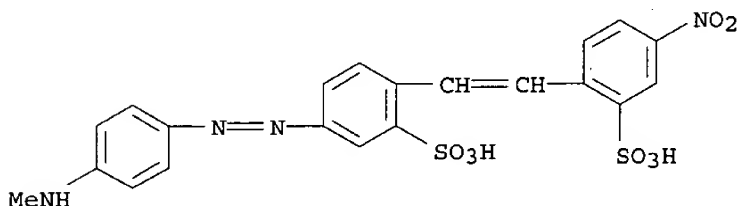
IT 40401-44-3

RL: USES (Uses)

(fiber-reactive dye prepn. from)

RN 40401-44-3 CAPLUS

CN Benzenesulfonic acid, 5-[[4-(methyamino)phenyl]azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]-, disodium salt (9CI) (CA INDEX NAME)



● 2 Na

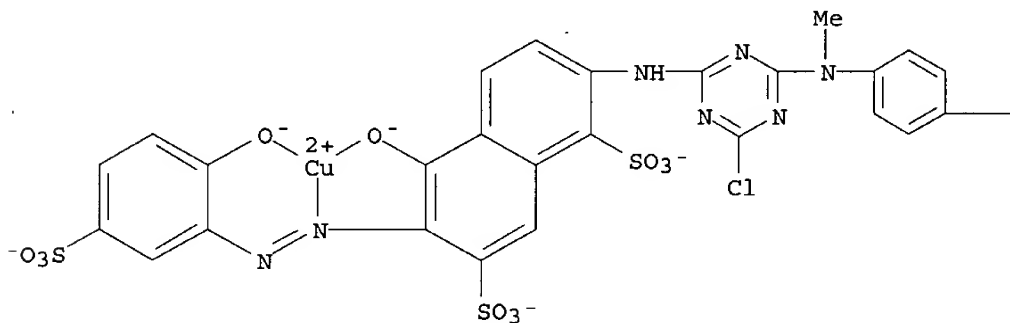
IT 41113-60-4P

RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. of)

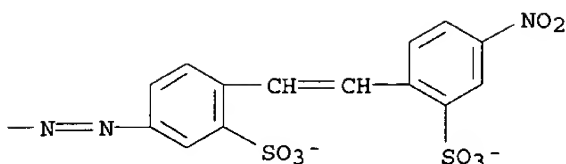
RN 41113-60-4 CAPLUS

CN Cuprate(5-), [2-[[4-chloro-6-[methyl 4-[[4-[2-(4-nitro-2-sulfophenyl)ethenyl]-3-sulfophenyl]azo]phenyl]amino]-1,3,5-triazin-2-yl]amino]-5-hydroxy-6-[(2-hydroxy-5-sulfophenyl)azo]-1,7-naphthalenedisulfonato(7-)]-, pentahydrogen (9CI) (CA INDEX NAME)

PAGE 1-A



● 5 H⁺



L22 ANSWER 75 OF 86 CAPLUS COPYRIGHT 2003 ACS

AN 1972:160781 CAPLUS

DN 76:160781

TI Mechanism of coloring gelatin layers. X. Acid coloring capacity of gelatin reliefs

AU Velichko, G. V.; Spasokukotskii, N. S.

CS Vses. Nauchno-Issled. Kinofotoinst., Moscow, USSR

SO Zhurnal Nauchnoi i Prikladnoi Fotografii i Kinematografii (1972), 17(2), 88-93

CODEN: ZNPFG; ISSN: 0044-4561

DT Journal

LA Russian

AB The capacity (detd. by titrn.) of photog.-grade HiO-washed gelatin for HCl and acid dyes was greater than that of gelatin purified by electrodialysis, probably because the H2O-washed gelatin contains larger amts. of excess OH groups. At 25.degree. and pH 2 the capacity of H2O-washed gelatin for Acid Orange, Acid Bright Orange, Acid Fast Orange, red-violet, and Acid Blue dyes was 1.07, 1.1, 0.64, 0.43, and 0.61 g-equiv./kg, resp. For all these dyes the capacity decreased by a factor of .apprx.2 at pH 3.5, and in their absorption as with other acid dyes (such as Thiocarmine R, Chlorazol Fast Orange R, Durazol Sky Blue 10 Zhs, Acid Metanil Yellow, and Acid Red 2Zh) from dil. (4 .times. 10⁻⁴ g-equiv./l.) solns., the capacity of H2O-washed gelatin was .apprx.0.2-0.6 g-equiv./kg, i.e., it could be either lower or higher than the capacity for HCl (which was 0.4 g-equiv./kg). The capacity increased sharply with increasing initial dye concn. in the soln. The differences in the degree of absorption are attributed to differences in the degree of ionization of the various dyes.

IT 12737-41-6

RL: PEP (Physical, engineering or chemical process); PROC (Process)
(adsorption of, by photographic gelatin layers)

RN 12737-41-6 CAPLUS

L22 ANSWER 76 OF 86 CAPLUS COPYRIGHT 2003 ACS

AN 1972:516012 CAPLUS

DN 77:116012

TI Thermal stability of direct dyes

AU Gromova, O. V.; Romanova, M. G.

CS Nauchno-Issled. Inst. Org. Poluprod. Krasitelei, Moscow, USSR

SO Tekstil'naya Promyshlennost (Moscow, Russian Federation) (1972), 32(6), 72-4

CODEN: TTLPA2; ISSN: 0040-2397

DT Journal

LA Russian

AB Of 44 direct dyes tested, 14 were stable in soln. for .geq.6 hr at 130.deg. under pressure in dyeing app; 8 addnl. dyes were stable for .geq.2 hr under the same conditions. The stable dyes included stilbenes, phthalocyanines, and most azo dyes; the unstable dyes were the metallized derivs., a phosgenated deriv., and pyrazolone azo dyes. Lightfast Direct Blue 23M [12764-75-9] was stable in neutral soln., but decompd. in alk. media; Direct Green ZhKh [5422-17-3] was stable in neutral soln., but

09567863

became brownish in a dyebath formulation. Stability was evaluated in side-by-side comparisons of original solns. and solns. after 1, 2, and 6 hr at 130.deg. by ascending paper chromatog., spectrophotometry and comparative dyeing tests (GOST 7925-56).

IT 37279-51-9

RL: USES (Uses)

(thermal stability of, chromatog. detn. of)

RN 37279-51-9 CAPLUS

L22 ANSWER 77 OF 86 CAPLUS COPYRIGHT 2003 ACS

AN 1972:60934 CAPLUS

DN 76:60934

TI Reactive dyes for cellulosic textiles

IN Parton, Brian

PA Imperial Chemical Industries Ltd.

SO Ger. Offen., 47 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2109879	A	19711007	DE 1971-2109879	19710302
	GB 1320921	A	19730620	GB 1970-9837	19700302
	PL 82810	P	19751031	PL 1971-146362	19710219
	PL 82823	P	19751031	PL 1971-146443	19710223
	BE 763417	A1	19710824	BE 1971-100174	19710224
	NL 7102676	A	19710906	NL 1971-2676	19710301
	FR 2084040	A5	19711217	FR 1971-7002	19710301
	FR 2084024	A5	19711217	FR 1971-6950	19710301
	BR 7101275	A0	19730313	BR 1971-1275	19710302
	ES 388801	A1	19730516	ES 1971-388801	19710302
	ES 388803	A1	19730516	ES 1971-388803	19710302
	SU 429593	D	19740525	SU 1971-1625978	19710302
	SU 451254	D	19741125	SU 1971-1629886	19710302
	CH 556903	A	19741213	CH 1971-3032	19710302
	CH 557410	A	19741231	CH 1971-3031	19710302
	SU 469262	D	19750430	SU 1971-1803317	19710302
	CS 164291	P	19751107	CS 1971-1542	19710302
	CS 165348	P	19751222	CS 1971-5720	19710302
	CS 165347	P	19751222	CS 1971-1541	19710302

PRAI GB 1970-9837

19700302

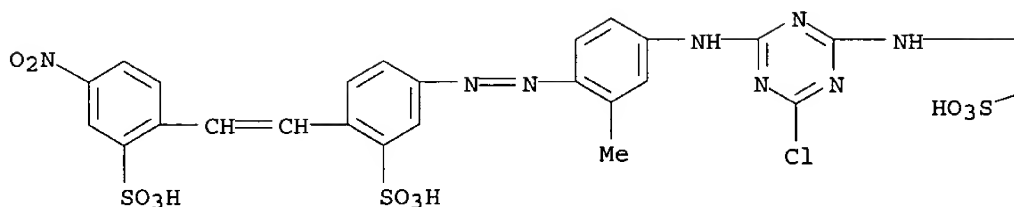
AB Azo or disazo dyes (I; R = azo dye residue, X = Cl, 3-NaO3SC6H4NH), dyeing cellulosic fabrics washfast reddish yellow to blue shades, were prepd. For example, reaction of cyanuric chloride with di-Na 4-(4-amino-2-methylphenylazo)-4'-nitrostilbene-2,2'-disulfonate at 0-5.deg. and pH 6-7, then with a Me2CO-water soln. of 1,3-(H2N)2C6H2(SO3H)2-4,6 at 35-40.deg. and pH 5-6, followed by treatment with cyanuric chloride for 2 hr at pH 6-7, and salting out gave an azo dye (II) [34049-92-8] dyeing cellulosic materials reddish yellow. Similarly, 4 other I were prepd.

IT 35102-76-2P

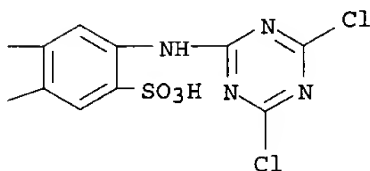
RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. of)

RN 35102-76-2 CAPLUS

CN 1,3-Benzenedisulfonic acid, 4-[[[4-chloro-6-[[[3-methyl-4-[[[4-[2-(4-nitro-2-sulphophenyl)ethenyl]-3-sulphophenyl]azo]phenyl]amino]-1,3,5-triazin-2-yl]amino]-6-[(4,6-dichloro-1,3,5-triazin-2-yl)amino]-, disodium salt (9CI)
(CA INDEX NAME)



● 2 Na



L22 ANSWER 78 OF 86 CAPLUS COPYRIGHT 2003 ACS

AN 1969:79145 CAPLUS

DN 70:79145

TI Water-soluble, fiber-reactive dyes

IN Scherer, Otto; Uhl, Klaus

PA Farbwerke Hoechst A.-G.

SO Ger., 7 pp.

CODEN: GWXXAW

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 1287234		19690116	DE	19631028
GI	For diagram(s), see printed CA Issue.				
AB	Compds. of the general structure Y(CH:CH)nCONHQ (I), where Q is a dye residue, dye cellulose and protein fibers. Thus, 56.1 parts 1,8,3,6,7-AcNH(HO)(HO3S)2C10H3N:NC6H3(SO3H)NH2-2,4 (II) was adjusted to pH 8 with 2N Na2CO3, treated dropwise with 19.05 parts YCOCl (R1 = R2 = R3 = H, X = F) (III) in 25 vols. Me2CO while maintaining pH 7.5-8 with a soln. of 6 parts Na2CO3 in 20 vols. H2O, adjusted to pH 4 with concd. HCl, stirred for 45 min., and salted to ppt. 70 parts IV, which dyed cotton violet-red. Similarly, other I were prepd. (R1, R2, R3, X, n, QNH2, and shade given): Cl, H, H, F, 0, II, -; H, H, H, F, 1, II, -; H, H, Ph, F, O, II, -; H, H, H, Cl, O, II, -; H, H, H, F, O, 4,8,2-(HO3S)2C10H5N:NC6H3(NH2)Me-4,2, yellow; H, H, H, F, O, V (R4 = NH2, R5 = H, R6 = SO3H), greenish blue; H, H, H, F, 1, 4,2-O2N(HO3S)C6H3CH:CHC6H3(N:NC6H4NHMe-4)SO3H-4,2, yellow; Cl, H, H, F, 0, 1-(4-sulfophenyl)-4-(5-amino-2-sulfophenylazo)-5-pyrazolone - 3 - carboxylic acid, reddish yellow; Cl, H, H, Cl, 0, 2, 5, 7, 6-H2N(HO)-(HO3S)C10H4N:NC6H4SO3H-2, orange red; Me, H, H, F, O, 2, 4-HO3S(4-HO3SC6H4N:N)C6H3N:NC6H3(NH2)Me-4,2, yellow-brown; H, H, H, F, O, V (R4 = SO3H, R5 = NH2, R6 = H), blue; H, H, H, Cl, 1, CuPc(SO2H)2-3SO2NHC6H3(SO3H)NH2-3, 4 (Pc = phthalocyanine), greenish blue;				

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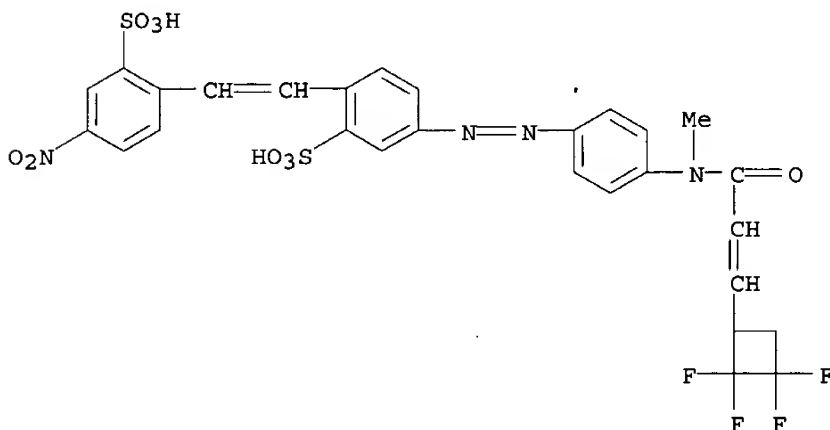
H, H, H, F, O, VI [obtained by heating 2,5-(H₂N)₂C₆H₃SO₃H and perylenetetra-carboxylic anhydride in quinoline at 180.degree.], reddish blue; H, H, H, Cl, O, 2-amino-6-trifluoromethylphthaloyl-(3,4)-acridone, blue; H, Me, Me, F, O, 11-amino-12-oxo-12H-benzo[b]thioxan-thenedisulfonic acid, khaki brown. 3,3,4,4-Tetrafluoro-1-cyclobutene-1-carbonyl chloride and 1,8,3,6,7-MeNH(HO) (HO₃S)₂-C₁₀H₃N:NPh gave a red dye.

IT 10000-64-3P

RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. of)

RN 10000-64-3 CAPLUS

CN 2,2'-Stilbenedisulfonic acid, 4-[[p-[N-methyl-3-(2,2,3,3-tetrafluorocyclobutyl)acrylamido]phenyl]azo]-4'-nitro- (7CI, 8CI) (CA INDEX NAME)



L22 ANSWER 79 OF 86 CAPLUS COPYRIGHT 2003 ACS

AN 1968:3897 CAPLUS

DN 68:3897

TI Stilbene azo dyes

IN Perkins, Melvin A.; Urion, Howard K.

PA du Pont de Nemours, E. I., and Co.

SO Fr., 7 pp.

CODEN: FRXXAK

DT Patent

LA French

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 1480427		19670512		
PRAI	US		19650429		

GI For diagram(s), see printed CA Issue.

AB The title compds. are direct yellow or orange dyes for paper. Thus, 150 parts of a 40% soln. of 2,5-Me(O₂N)C₆H₃SO₃Li (I) was heated to 75.degree. with stirring, 5.5 parts LiOH.H₂O added, the temp. held at 75 .+-. 3.degree. for 3 hrs., the mixt. cooled to 40.degree., and 85% H₃PO₄ added to pH 5-7 to give a concd. paste contg. the red-yellow dye II (M = Li), which can be used with paper, leather, or lacquers. The shade can be varied by the concn. of alkali and the time of heating. Using NaOH together with LiOH gave a similar product, II (M = Li or Na). A similar procedure, using a mixt. of 1.13 moles I and 0.24 mole 4,4'-dinitro-2,2'-stilbenedisulfonic acid (III) mono-Li/mono-Na salt, gave IV (M = Li or Na in 6:1 ratio), which colored paper green-yellow. Use of 1.13 moles I and 0.23 mole III (di-Na salt) gave a green-yellow

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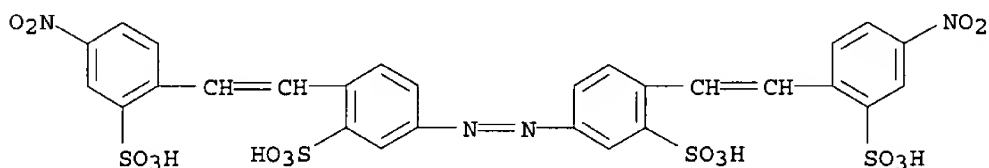
dye (Li/Na = 2.4:1.). Modification of the first procedure by adding dextrose after the LiOH gave V, an orange **dye**. Heating a mixt. of II (di-Li salt) and HN(CH₂CH₂OH)₂ gave IV (M = Li), a green-yellow **dye**.

IT 16473-82-8P 16474-07-0P 18682-65-0P
18683-13-1P

RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. of)

RN 16473-82-8 CAPLUS

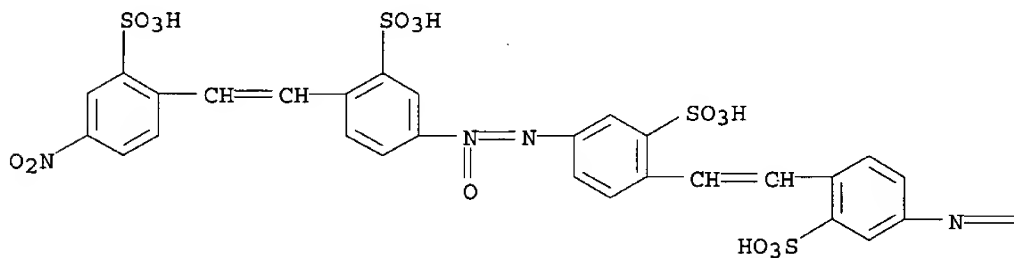
CN 2,2'-Stilbenedisulfonic acid, 4,4''-azobis[4-nitro-, tetralithium salt
(8CI) (CA INDEX NAME)



●4 Li

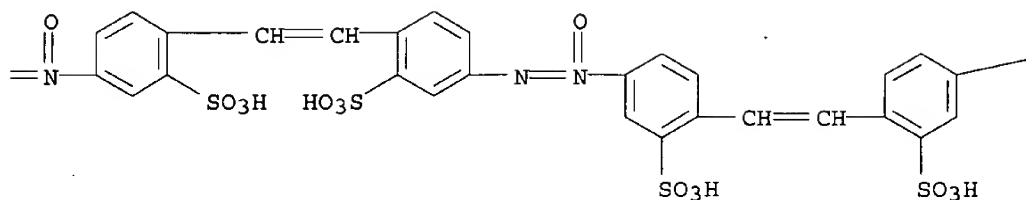
RN 16474-07-0 CAPLUS

CN 2,2'-Stilbenedisulfonic acid, 4,4''-azoxybis[4'-[[4-(4-nitro-2-sulfostyryl)-3-sulfophenyl]-ONN-azoxy]-, octalithium salt (8CI) (CA INDEX NAME)

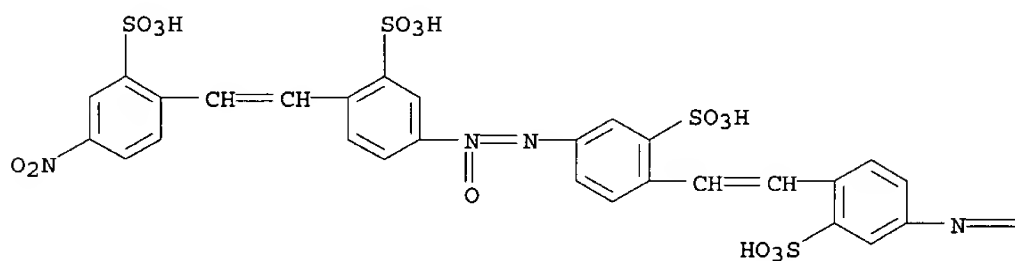


PAGE 1-A

●8 Li

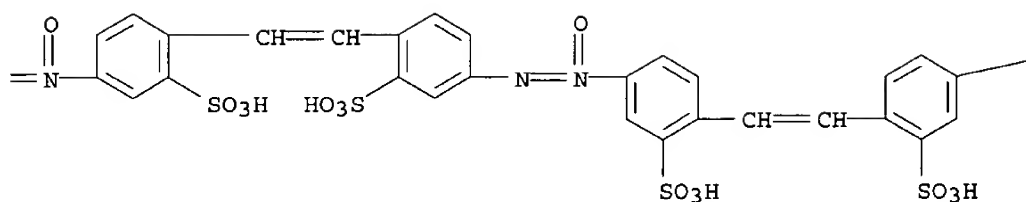
—NO₂

RN 18682-65-0 CAPLUS
 CN 2,2'-Stilbenedisulfonic acid, 4,4''-azoxybis[4'-[[4-(4-nitro-2-sulfostyryl)-3-sulfophenyl]-ONN-azoxy]-, lithium sodium salt (8CI) (CA INDEX NAME)

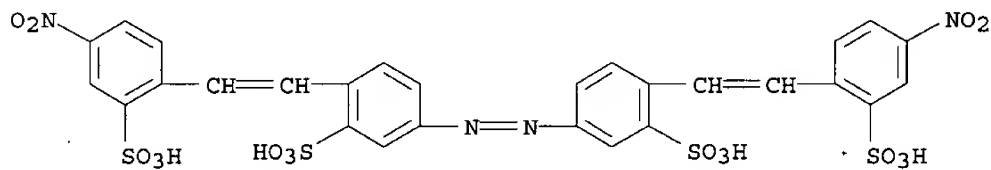


●x Li

x Na

—NO₂

RN 18683-13-1 CAPLUS
 CN 2,2'-Stilbenedisulfonic acid, 4,4''-azobis[4'-nitro-, dilithium disodium salt (8CI) (CA INDEX NAME)

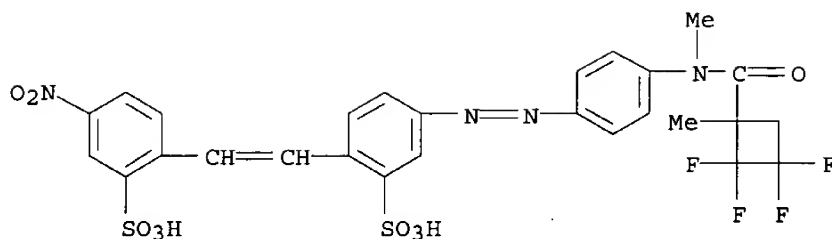


● 2 Li

● 2 Na

L22 ANSWER 80 OF 86 CAPLUS COPYRIGHT 2003 ACS
 AN 1967:474456 CAPLUS
 DN 67:74456
 TI Water-soluble dyes containing polyfluorocyclobutyl or polyfluorocyclobutenyl groups
 PA Farbwerke Hoechst A.-G.
 SO Fr., 16 pp.
 CODEN: FRXXAK
 DT Patent
 LA French
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 1448600		19660805		
PRAI	DE		19640930		
GI	For diagram(s), see printed CA Issue.				
AB	<p>Compds. of the general formula [AN(R)]_n-Q, where ANHR is an amino dye, R is H or Me, and n is 1 or 2, prepd. by condensing QCl with ANHR at 0-80.degree. and pH 2-6.5, dye cellulosic and protein fibers in shades fast to washing, Na₂CO₃ at the boiling point, peroxides, and perspiration. Thus, 4,2-AcNH(HO₃S)C₆H₃NH₂ .fwdarw. 1-(p-sulfophenyl)-3-methyl-5-pyrazolone (I) was deacylated and the amine (45.3 parts) brought to pH 6 with 5% NaHCO₃ soln. and treated at pH 5.5-6.5 with 19.1 parts 2,2,3,3-tetrafluorocyclobutane-1-carboxylic acid chloride in 50 vols. Me₂CO to give II, which dyes cotton a reddish yellow shade. Similarly, other AN(R)Q were prepd. (ANHR, Y, X1, X2, R1, R2, R3, and shade on cellulosic fibers given): (deacylated) 5,2-AcNH(HO₃S)C₆H₃NH₂ (III) .fwdarw. 1-(p-sulfophenyl)-3-carboxy-5-pyrazolone (IV), CO, F, F, Cl, H, H, greenish yellow; 1-(m-aminophenyl)-3-carboxy-4-(2,5-disulfophenylazo)-5-pyrazolone, CO, Cl, F, H, H, H, reddish yellow; 2,4,8-H₂NC₁₀H₅(SO₃H)₂ .fwdarw. 3-MeC₆H₄NH₂ (V), CO, Cl, F, Cl, H, H, reddish yellow; 4,2-O₂N(HO₃S)C₆H₃CH:CHC₆H₃(SO₃H)NH₂-2,4 .fwdarw. PhNHMe, CO, F, F, Me, H, H, yellow; 1,7,2-(HO₃S)C₁₀H₅NH₂ .fwdarw. 1,3,6-HO(HO₃S)C₁₀H₅NHMe, CO, F, F, H, Me, Me, orange-red; o-HO₃SC₆H₄NH₂ (VI) .fwdarw. 1,3,6-HO(HO₃S)C₁₀H₅NH₂, COCH:CH, F, F, H, H, H, orange-red; 1,2,3,7-HO[4,2-Cl(HO₃S)C₆H₃N:N](HO₃S)C₁₀H₄NHMe, CO, F, F, H, Ph, H, red; PhNH₂ .fwdarw. 1,3,6,8-HO(HO₃S)2C₁₀H₄NH₂ (VII), COCH:CH, Cl, F, H, H, H, red; VI .fwdarw. VII, CO, Cl, Cl, Cl, H, H, H, red; 2,1-H₂NC₁₀H₆SO₃H (VIII) .fwdarw. VII, CO, Cl, Cl, Cl, H, H, H, bluish red; 4-HO₃SC₆H₄N:NC₆H₃(SO₃H)NH₂-3,4 .fwdarw. V, CO, Cl, F, Me, H, H, yellow-brown; 4,2-A₁(HO₃S)C₆H₃NH₂, CO, Cl, Cl, Me, H, H, greenish blue; 5,2-A₂(HO₃S)C₆H₃NH₂, COCH:CH, F, F, H, Me, H, blue; 4-A₁C₆H₄N:NC₆H₃(SO₃H)NH₂-3,4, CO, F, F, H, H, H, olive-green; 4-A₁C₆H₄NHC₆H₃(SO₃H)NH₂-3,4, CO, H, F, H, H, H, greenish blue; 4,3-A₂(HO₃S)C₆H₃CH:CHC₆H₃(SO₃H)NH₂-3,4, COCH:CH, Cl, Cl, H, H, H, light green; CuPc(SO₃H)3SO₂NHC₆H₃(SO₃H)NH₂-3,4 (Pc = phthalocyanine residue), COCH:CH, F, F, H, H, H, greenish blue; NiPc(SO₃H)3SO₂NHC₆H₃(SO₃H)NH₂-4,3, COCH:CH, F, F, H, Me, H, green; IX COCH:CH, F, F, H, H, H, khaki; X, SO₂, F, F, H, H, H, violet-gray; (reduced) 6,4,8,2-O₂N(HO₃S)2C₁₀H₄NH₂ (XI) .fwdarw. II, COCH:CH, F, F, H, H, H, reddish yellow; (reduced) XI .fwdarw. IV, COCH:CH, F, F, H, H, H, orange-red; (reduced) 4,2-O₂N(HO₃S)C₆H₃NH₂ (XII) .fwdarw. IV, COCH:CH, F, F, H, H, H, golden yellow; 2,6,8-H₂NC₁₀H₅(SO₃H)₂ .fwdarw. V, COCH:CH, F, F, H, H, H, reddish yellow; 4,2-(4-HO₃SC₆H₄N:N)(HO₃S)C₆H₃NH₂ .fwdarw. m-AcNHC₆H₄NH₂, COCH:CH, F, F, H, H, H, brown-yellow; VIII .fwdarw. 1,8,3,6-HO(m-H₂NC₆H₄CONH)C₁₀H₄(SO₃H)₂, COCH:CH, F, F, H, H, H, bluish red; (deacylated) III .fwdarw. 1,3,6-HOC₁₀H₅(SO₃H)₂, COCH:CH, F, F, H, H, H, orange-red; (deacylated) III .fwdarw. 2,6,8-HOC₁₀H₅(SO₃H)₂, COCH:CH, F, F, H, H, H, orange-red; m-A₂C₆H₄CH₂NH₂, COCH:CH, F, F, H, H, H, brilliant blue. Similarly, (reduced) XII .fwdarw. 1,3,6,8-HO(HO₃S)2C₁₀H₄NHAc was acylated with 2-chloro-3,3-difluorocyclobutene-1-carboxylic acid, and 2 moles XIII were condensed with 2,2,3,3-tetrafluorocyclobutanephosphonic acid dichloride.</p>				
IT	16249-50-6P				
	RL: IMF (Industrial manufacture); PREP (Preparation) (prepn. of)				
RN	16249-50-6 CAPLUS				
CN	2,2'-Stilbenedisulfonic acid, 4-nitro-4'-[[p-(2,2,3,3-tetrafluoro-N,1-dimethylcyclobutanecarboxamido)phenyl]azo]- (8CI) (CA INDEX NAME)				



L22 ANSWER 81 OF 86 CAPLUS COPYRIGHT 2003 ACS

AN 1966:457270 CAPLUS

DN 65:57270

OREF 65:10704d-h,10705a-b

TI Water-soluble dyes

PA Farbwerke Hoechst A.-G.

SO 10 pp.

DT Patent

LA Unavailable

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 1412793		19651001	FR	
	US 3278549		1966	US	
PRAI	DE		19631028		

GI For diagram(s), see printed CA Issue.

AB Compds. contg. the group Y or Y', where X is F, Cl, or H, are H₂O-sol. cotton dyes. Thus, 56.1 parts 1,8,3,6,7-AcNH-(HO)(HO₃S)₂C₁₀H₃N:NC₆H₃(SO₃H)NH₂-2,4 (I) was adjusted to pH 8 with 2N Na₂CO₃, treated dropwise with 19.05 parts YCOCl (X = F, R₁ - R₃ = H) (II) in 25 vols. Me₂CO, keeping the pH at 7.5-8 with a soln. of Na₂CO₃ 6 in H₂O 20 parts, the pH brought to 4 with concd. HCl, the mixt. stirred for 45 min. and NaCl added to ppt. 70 parts III, which dyed cotton violet-red. Similarly, other compds. were prep'd. (reactants and shade given): I, YCOCl (X = F, R₁ = R₂ = H, R₃ = Cl) (IV), -, I, YCH:CHCOCl (X = F, R₁ - R₃ = H) (V), -, I, YCOCl (X = F, R₁ = Ph, R₂ = R₃ = H), -, I, YCOCl (X = Cl, R₁ - R₃ = H), (VI), -, 4,8,2-(HO₃S)₂C₁₀H₅N:NC₆H₃Me(NH₂)-2,4, II, yellow; 1-amino-4-(4-aminoanilino)-2.6-anthraquinonedisulfonic acid, II, greenish blue; 4,2-O₂N(HO₃S)₂C₆H₃CH:CHC₆H₃(SO₃H)NH₂-2,4 .fwdarw. PhNHMe, V, yellow; 3,6-AcNH(HO₃S)₂C₆H₃NH₂ .fwdarw. 1-(4-sulfophenyl)-3-carboxy-5-pyrazolone (VII), Ac group hydrolyzed, IV, reddish yellow; 2-H₂NC₆H₄SO₃H (VIII) .fwdarw. 2,5,7-H₂N(HO)₂C₁₀H₅SO₃H (IX), YCOCl (X = Cl, R₁ = R₂ = H, R₃ = Cl), orange; PhNH₂ .fwdarw. 1,8,3,6-MeNH(HO)₂C₁₀H₄(SO₃H)₂, Y'COCl, red; 4,3-H₂N(HO₃S)₂C₆H₃N:NC₆H₄SO₃H-4 .fwdarw. 3-MeC₆H₄NH₂, YCOCl (X = F, R₁ = R₂ = H, R₃ = Me), yellow-brown; 1-amino-4-(3-amino-4-sulfoanilino)-2-anthraquinonesulfonic acid (X), YSO₂Cl (X = F, R₁ - R₃ = H), blue; CuPc(SO₃H)₃SO₂NHC₆H₃(SO₃H)NH₂-4,3-(Pc = phthalocyanine), V, greenish blue; XI, Na₂S₂O₄.2H₂O, II (2 moles), H₂O₂, reddish blue; XII, VI, blue; XIII [prep'd. by condensing 2-HSC₆H₄CO₂H and 1-H₂NC₁₀H₇ in H₂SO₄ (d. 1.84)], YCOCl (X = F, R₁ = R₂ = Me, R₃ = H), khaki brown; VIII .fwdarw. IX, YCOCl (X = Cl, R₁ = iso-Bu, R₂ = R₃ = H), reddish orange; 4,2-O₂N(HO₃S)₂C₆H₃NH₂ .fwdarw. AcCH₂CONHPh, NO₂ reduced to NH₂ with Na₂S, YCOBr (X = R₁ - R₃ = H), greenish yellow; X, V, blue; 4,2-AcNH(HO₃S)₂C₆H₃NH₂ .fwdarw. VII, Ac group hydrolyzed, V, reddish yellow; 2,6,8-H₂NC₁₀H₅(SO₃H)₂ .fwdarw. V, reddish yellow.

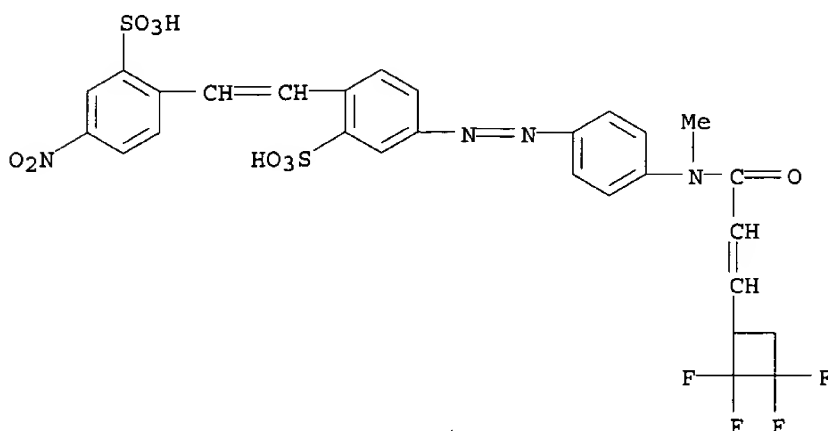
IT 10000-64-3, 2,2'-Stilbenedisulfonic acid, 4-[[p-[N-methyl-3-(2,2,3,3-tetrafluorocyclobutyl)acrylamido]phenyl]azo]-4'-nitro- (prepn. of)

RN 10000-64-3 CAPLUS

CN 2,2'-Stilbenedisulfonic acid, 4-[[p-[N-methyl-3-(2,2,3,3-

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tetrafluorocyclobutyl)acrylamido]phenyl]azo]-4'-nitro- (7CI, 8CI) (CA INDEX NAME)



L22 ANSWER 82 OF 86 CAPLUS COPYRIGHT 2003 ACS

AN 1966:36413 CAPLUS

DN 64:36413

OREF 64:6795b-d

TI Dicyclohexylamine compounds of metal-containing pyrazolone azo dyes

IN Kappenberger, Helmut; Noll, Walter; Heyna, Johannes

PA Farbwerke Hoechst A.-G.

SO 2 pp.

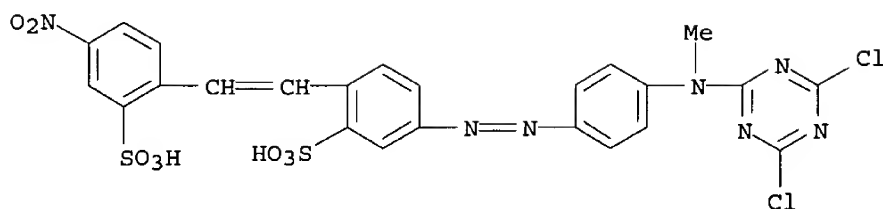
DT Patent

LA Unavailable

FAN.CNT 1

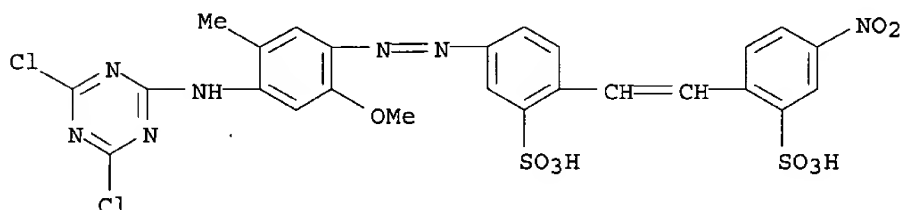
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 1204763		19651111	DE	19600915
AB	The title compds., useful for coloring nitro lacquers, were prepd. by treatment of Cr or Co complexes of pyrazolone azo dyes contg. a H2C:CHSO2 group with dicyclohexylamine (I). Thus, a soln. of 2,5-HO(HOCH2CH2SO2)C6H3NH2 110 in 90% H2SO4 325 parts was diazotized, adjusted to pH 6.5-7 with NaHCO3, a mixt. of 1-phenyl-3-methyl-5-pyrazolone (II) 87, 40.degree. Be. NaOH 57, NaOAc 272, and H2O 1013 parts added, the mixt. heated to 60-80.degree., a soln. of Cr alum 300 and NaOH 544 in H2O 1600 parts added, boiled for 3 hrs., and the ppt. filtered. The dye 100 and H2O 2500 parts were heated to 60-70.degree., added with stirring within 2-3 hrs. to a soln. of I 23.3 in concd. H2SO4 9.5 and H2O 300 parts, the ppt. filtered, washed, and dried to give a red powder, sol. in org. solvents. Similarly, the Co complex of the above dye gave a yellow-brown powder, and the Cr complex of 2,4-HO(HOCH2CH2O2S)C6H3NH2 .fwdarw. II gave a brown-red powder.				
IT	4882-79-5, 2,2'-Stilbenedisulfonic acid, 4-[[p-[(4,6-dichloro-s-triazin-2-yl)methylamino]phenyl]azo]-4'-nitro- 5085-39-2, 2,2'-Stilbenedisulfonic acid, 4-[[4-[(4,6-dichloro-s-triazin-2-yl)amino]-6-methoxy-m-tolyl]azo]-4'-nitro- (prepn. of)				
RN	4882-79-5 CAPLUS				
CN	Benzenesulfonic acid, 5-[[4-[(4,6-dichloro-1,3,5-triazin-2-yl)methylamino]phenyl]azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]- (9CI) (CA INDEX NAME)				

09567863



RN 5085-39-2 CAPLUS

CN 2,2'-Stilbenedisulfonic acid, 4-[[4-[(4,6-dichloro-s-triazin-2-yl)amino]-6-methoxy-m-tolyl]azo]-4'-nitro- (7CI, 8CI) (CA INDEX NAME)



L22 ANSWER 83 OF 86 CAPLUS COPYRIGHT 2003 ACS

AN 1964:484772 CAPLUS

DN 61:84772

OREF 61:14818h,14819a-c

TI Chlorotriazinyl azo dyes

IN Andrew, Herbert F.

PA Imperial Chemical Industries Ltd.

SO 5 pp.

DT Patent

LA Unavailable

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3084152		19630402	US	
GB 19570225				

PI US 3084152

19630402

US

PRAI GB

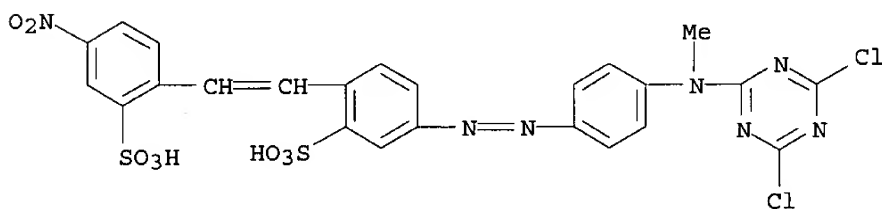
19570225

GI For diagram(s), see printed CA Issue.

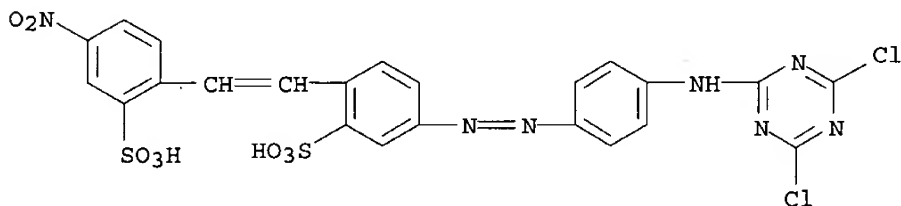
AB Azo dyes contg. in one of the azo components a 4,6-dichloro-s-triazin-2-ylamino group attached directly or through a bivalent aryl group were prepd. Di-Na salt 29.6 of 4-nitro-4'-aminostilbene-2,2' - disulfonate .fwdarw. PhNH₂ in H₂O 750 treated with cyanuric chloride (I) 10 in Me₂CO 200 parts yielded di-Na 4-nitro-4'-[4-(4,6-dichloro-s-triazin-2-ylamino)phenylazo] stilbene-2,2'-disulfonate which dyes yellow shades of excellent fastness to washing and light. A similar run with cyanuric bromide 17.5 parts gave the reddish yellow 4,6-di-Br analog. Tetra-Na salt 13.5 of 4-amino-4'-(5-sulfo-2-naphtho-1',2':4,5-triazolyl)stilbene-2,2'-disulfonic acid .fwdarw. 6,1-HO₃SC₁₀H₆NH₂ with I 3.5 parts yielded II which dyes cellulosic fibers fast, orange shades. Di-Na 4-amino-4'-(p-methoxyphenylazo)stilbene-2,2prime;-disulfonate (III) 57.7 with I 18.8 parts yielded di-Na 4-(4,6-dichloro-s-triazin-2-ylamino)-4'-(p-methoxyphenylazo)stilbene-2,2'-disulfonate which dyes greenish yellow shades. Tetra-Na salt 29.8 of 2,5-(HO₃S)₂C₆H₃NH₂ (IV) .fwdarw. 4-amino-4'-(3-methyl-5-pyrazolon-1-yl)stilbene-2,2' - disulfonic acid (V) with I 6.3 parts gave the tetra-Na salt of 4-(4,6-dichloro-s-triazin-2-ylamino)-4'-[3-methyl-4-(2,5-disulfophenylazo)-5-pyrazolon-1-yl]stilbene-2,2'-disulfonic acid (VI) which dyes yellow shades. VI was also prepd. by treating I with V and the product with diazotized IV. III 57.7 diazotized and coupled with 7,1-HO₃SC₁₀H₆NH₂, and the resulting disazo dye

condensed with I 18.8 parts yielded a fast, orange dye.

- IT 4882-79-5, 2,2'-Stilbenedisulfonic acid, 4-[[p-[(4,6-dichloro-s-triazin-2-yl)methylamino]phenyl]azo]-4'-nitro- 100576-59-8,
2,2'-Stilbenedisulfonic acid, 4-[[p-[(4,6-dichloro-s-triazin-2-yl)amino]phenyl]azo]-4'-nitro-, disodium salt 100732-85-2,
2,2'-Stilbenedisulfonic acid, 4-[[p-[(4,6-dibromo-s-triazin-2-yl)amino]phenyl]azo]-4'-nitro-, disodium salt 101473-59-0,
2,2'-Stilbenedisulfonic acid, 4-[[4-[(4,6-dichloro-s-triazin-2-yl)amino]-o-tolyl]azo]-4'-nitro- 101982-34-7, 2,2'-Stilbenedisulfonic acid,
4-[[4-[(4,6-dichloro-s-triazin-2-yl)amino]-5-methoxy-o-tolyl]azo]-4'-nitro-
(prepn. of)
RN 4882-79-5 CAPLUS
CN Benzenesulfonic acid, 5-[[4-[(4,6-dichloro-1,3,5-triazin-2-yl)methylamino]phenyl]azo]-2-[2-(4-nitro-2-sulfophenyl)ethenyl]- (9CI)
(CA INDEX NAME)



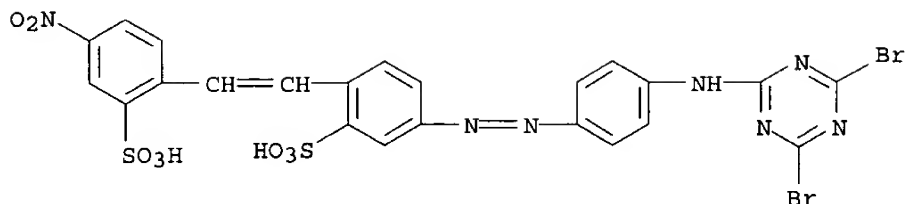
- RN 100576-59-8 CAPLUS
CN 2,2'-Stilbenedisulfonic acid, 4-[[p-[(4,6-dichloro-s-triazin-2-yl)amino]phenyl]azo]-4'-nitro-, disodium salt (7CI) (CA INDEX NAME)



● 2 Na

- RN 100732-85-2 CAPLUS
CN 2,2'-Stilbenedisulfonic acid, 4-[[p-[(4,6-dibromo-s-triazin-2-yl)amino]phenyl]azo]-4'-nitro-, disodium salt (7CI) (CA INDEX NAME)

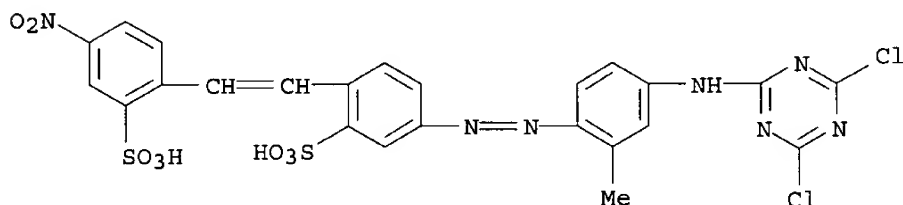
09567863



● 2 Na

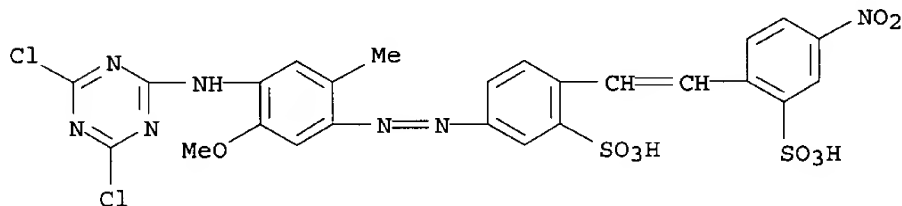
RN 101473-59-0 CAPLUS

CN 2,2'-Stilbenedisulfonic acid, 4-[[4-[(4,6-dichloro-s-triazin-2-yl)amino]-o-tolyl]azo]-4'-nitro- (7CI) (CA INDEX NAME)



RN 101982-34-7 CAPLUS

CN 2,2'-Stilbenedisulfonic acid, 4-[[4-[(4,6-dichloro-s-triazin-2-yl)amino]-5-methoxy-o-tolyl]azo]-4'-nitro- (7CI) (CA INDEX NAME)



L22 ANSWER 84 OF 86 CAPLUS COPYRIGHT 2003 ACS

AN 1964:39204 CAPLUS

DN 60:39204

OREF 60:6956d-f

TI Azostilbene dyes containing a trichloropyrimidyl group

IN Andrew, Herbert F.; Buckley, Donald

PA Imperial Chemical Industries Ltd.

SO 6 pp.

DT Patent

LA Unavailable

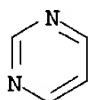
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 926327		19630515	GB	19600513
	DE 1219152			DE	
	US 3262923		1966	US	

GI For diagram(s), see printed CA Issue.

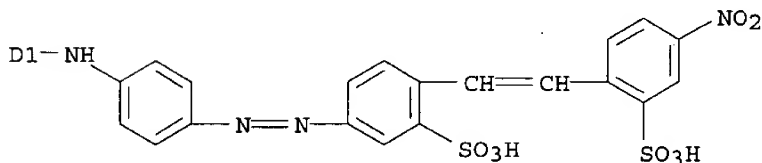
AB Azo dyes of the formula I (T = trichloropyrimidyl group) are reactive dyes

for cellulose fibers. Thus, a soln. of the amino azo dye (5.5 parts) 2,4-NaO₃S(O₂N)-C₆H₃CH:CHC₆H₃(SO₃Na)NH₂-2,4 (II) .fwdarw. PhNH₂ in H₂O 200 was added to a soln. of tetrachloropyrimidine (III) 2.7 in dioxane 30, the mixt. stirred at 55-60.degree. for 4 hrs. while adding 2N Na₂CO₃ to maintain pH 7, steam distd., NaCl 25 parts added, and the ppt. filtered and dried to give I (R = NO₂, A = p-phenylene, X = H), which dyed cellulose orange shades fast to light and washing. Similarly, the following I were prepd. (R, A, X, and shade given): NO₂, p-phenylene, Me, orange; 6,8-disulfo-2H-naphtho[1,2-d]triazol-2-yl, p-phenylene, Me, orange. 1,8,3,6-H₂N(HO)C₁₀H₄(SO₃Na)₂ 17.5 condensed with III 10.9 and coupled with diazotized II 22.2 parts gave I (R = NO₂, A = 8-hydroxy-3,6-disulfo-1,7-naphthylene, X = H), violet.

IT 102378-04-1, 2,2'-Stilbenedisulfonic acid, 4-nitro-4'-[[p-[(trichloropyrimidinyl)amino]phenyl]azo]-, disodium salt
 105143-97-3, 2,2'-Stilbenedisulfonic acid, 4-[[p-[methyl(trichloropyrimidinyl)amino]phenyl]azo]-4'-nitro-, disodium salt (prepn. of)
 RN 102378-04-1 CAPLUS
 CN 2,2'-Stilbenedisulfonic acid, 4-nitro-4'-[[p-[(trichloropyrimidinyl)amino]phenyl]azo]-, disodium salt (7CI) (CA INDEX NAME)



3 (D1- Cl)

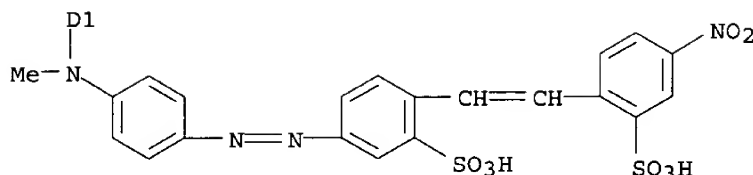


● 2 Na

RN 105143-97-3 CAPLUS
 CN 2,2'-Stilbenedisulfonic acid, 4-[[p-[methyl(trichloropyrimidinyl)amino]phenyl]azo]-4'-nitro-, disodium salt (7CI) (CA INDEX NAME)



3 (D1-C1)



● 2 Na

L22 ANSWER 85 OF 86 CAPLUS COPYRIGHT 2003 ACS

AN 1964:492863 CAPLUS

DN 61:92863

OREF 61:16200b-d

TI Metalized azo dyes

PA Mitsubishi Chemical Industries Co., Ltd.

SO 43 pp.

DT Patent

LA Unavailable

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI BE 634848		19631031	BE	
FR 1373060			FR	
PRAI JP		19620725		

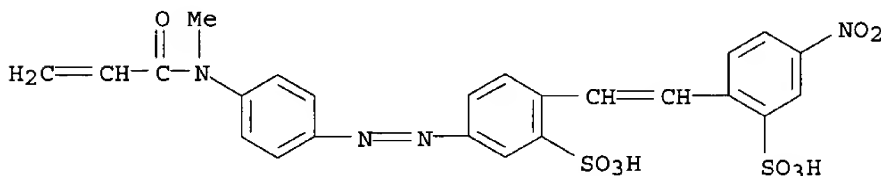
AB Metalized azo compds. contg. fiber-reactive groups were prepd. Thus, 2,4,8-H₂NC₁₀H₅(SO₃H)₂ (I) 16.3 was diazotized and coupled with 2,5,7-AcNH(HO)C₁₀H₅SO₃H (II) 14.1, the mixt. neutralized and added dropwise to aq. Na₂CO₃, the pH brought to 5.5-6.0 with AcONa and AcOH, then CuSO₄·5H₂O 12.5 in H₂O 70 added, the mixt. heated to 50-55.degree., 3% H₂O₂ 140 added, and the mixt. stirred 1 hr., then NaOH 50 parts added at 90.degree. during 2 hrs. to hydrolyze the Ac group, the product salted and filtered. The moist cake was dissolved in H₂O 750, the pH being 6.5-7.0, then a dispersion of cyanuric chloride (III) in ice-H₂O 150 parts was added with stirring, the mixt. stirred 1 hr., the pH brought to 6.5-7.0 with 10% aq. Na₂CO₃, and after stirring 1 hr. NaCl added and the ppt. filtered. NaH₂PO₄ 10, Na₂HPO₄ 30, and PhNEt₂ 6.5 parts were mixed with the moist cake and then the whole vacuum-dried at <50.degree., giving a H₂O-sol. dye which dyed cellulose bluish violet. Similarly, other dyes were prepd. (amine diazotized, coupling component, acylating agent, and shade given): 2,6,4,8-H₂N(O₂N)C₁₀H₄(SO₃H)₂ (IV), 2,5,1,7-AcNH(HO)C₁₀H₄(SO₃H)₂ (V), 2,4,5,6-tetrachloropyrimidine, blue; I, 1,8,3,6-HO [4-O₂NC₆H₄CONH] C₁₀H₄(SO₃H)₂, (NO₂ reduced after coppering), III, reddish blue; IV, II, (NO₂ reduced before coppering), III, bluish

violet; IV, II, (NO₂ reduced before coppering), MeCCl:CHCOCl, violet; IV .fwdarw. V oxidatively coppered, decoppered, then treated with Cr NH₄ salicylate, III, greenish blue; I, 2-(dichloropyrimidinylamino)-5-naphthol-7-sulfonic acid, 2,4,6-trichloropyrimidine, violet.

IT 96708-03-1, 2,2'-Stilbenedisulfonic acid, 4-[[p-(N-methylacrylamido)phenyl]azo]-4'-nitro-
(prepn. of)

RN 96708-03-1 CAPLUS

CN 2,2'-Stilbenedisulfonic acid, 4-[[p-(N-methylacrylamido)phenyl]azo]-4'-nitro- (7CI) (CA INDEX NAME)



L22 ANSWER 86 OF 86 CAPLUS COPYRIGHT 2003 ACS

AN 1963:428984 CAPLUS

DN 59:28984

OREF 59:5294d-h

TI Polyazo triazine dyes

IN Andrew, Herbert F.; Pearson, Kenneth W.

PA Imperial Chemical Industries Ltd.

SO 10 pp.

DT Patent

LA Unavailable

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 877178		19610913	GB	19581119

AB Amino group contg. azo dyes are treated with a halo-s-triazine to give watersol. dyes for cotton. Thus, the tri-Na salt 15.88 of 1-anilino-7-[4-(2-sulfophenylazo)-5-amino-2-methoxyphenylazo]-8-naphthol-3,6-disulfonic acid (I) [obtained by coupling diazotized o-anisidine with 3,4-H₂N(MeO)C₆H₃NHAc, diazotizing this compd. and coupling with 1,8,3,6-PhNH(HO)C₁₀H₄(SO₃H)₂] in H₂O 600 was treated with cyanuric chloride 3.7 suspended in iced water 100 parts to give a navy-blue dye for cotton. Dyes prepd. similarly were (azo dye, equivs. of cyanuric chloride, color on cotton given): tri-Na salt of 4-[4-sulfophenylazo]5-amino-2-methoxyphenylazo]-3-carboxy-1-(4-sulfophenyl)-5-pyrazolone, 1, red; 1-amino-7-[4-(2-sulfophenylazo)-5-amino-2-methoxyphenylazo]-8-naphthol-3,6-disulfonic acid, 2, red-blue; 2-amino-6-[4-(2-sulfophenylazo)-5-amino-2-methoxyphenylazo]5-naphthol-1,7-disulfonic acid, 2, helio; 1-anilino-7-[4-(4-nitro-2-sulfophenylazo)-5-amino-2-methoxyphenylazo]-8-naphthol-3,6-disulfonic acid, 1, green-gray; 4-acetamido-4'-[3-(5-sulfo-2-hydroxyphenylazo)-2,4-diaminophenylazo]-2,2'-stilbenedisulfonic acid, 1, brown; 4-amino-4'-[3-(5-sulfo-2-hydroxyphenylazo)-2,4-diaminophenylazo]-2,2'-stilbenedisulfonic acid, 2, brown; 1-anilino-7-[4-(6,8-disulfo-2-naphthylazo)-3-aminophenylazo]-8-naphthol-3,6-disulfonic acid, 1, green-gray; 1-anilino-7-[4-(2,5-disulfophenylazo)-3-aminophenylazo]-8-naphthol-3,6-disulfonic acid, 1, green-gray; 1-anilino-7-[4-(4-amino-2-sulfophenylazo)5-amino-2-methoxyphenylazo]-8-naphthol-3,6-disulfonic acid, 2, green; Cu complex of 1-amino-7-[4-(2-sulfophenylazo)-5-amino-2-methoxyphenylazo]-8-naphthol-3,6-disulfonic acid, 2, blue; tri-Na salt of the Cu complex of 1-anilino-7-[4-(4-sulfophenylazo)5-amino-2-carboxyphenylazo]-8-naphthol-3,6-disulfonic acid, 1, blue; Cu complex of 4-nitro-4'-[3-(5-sulfo-2-

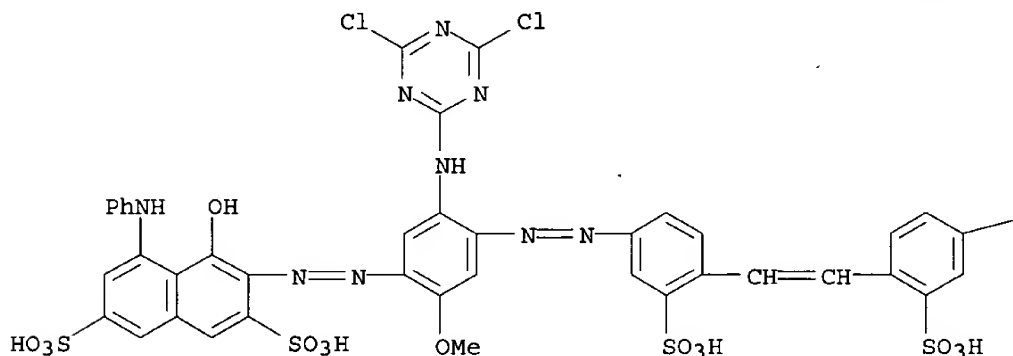
hydroxyphenylazo)2,4-diaminophenylazo]-2,2'-stilbenedisulfonic acid, 1, red-brown; 4-nitro-4'-[3-(5-sulfo-2-hydroxy-3-carboxyphenylazo)-2,4-diaminophenylazo]diphenylamine-2-sulfonic acid, 1, brown; 4-nitro-4'-[3-(5,7-disulfo-2-naphthylazo)-2,4-diaminophenylazo]diphenylamine-2-sulfonic acid (II), 1, brown; II, 2, yellow-brown; tetra-Na salt of 4,4'-bis[1-hydroxy-6,8-disulfo-2-naphthylazo]2-aminobiphenyl, 1, red; 1-anilino-7-[4-(4'-nitro-2,2'-disulfostilben-4-ylazo)-5-amino-2-methoxyphenylazo]-8-naphthol-3,6-disulfonic acid, 1, green; tetra-Na salt of 4,4'-bis(1-anilino-8-hydroxy-3,6-disulfo-7-naphthylazo)-2-aminobiphenyl, 1, blue; tetra-Na salt of 1,4-bis(2-hydroxy-6,8-disulfo-1-naphthylazo)-2-aminobenzene, 1, blue-red; tetra-Na salt of 1-anilino-7-[4-(2,5-disulfophenylazo)-3-(4-aminobenzamido)phenylazo]-8-naphthol-3,6-disulfonic acid, 1, blue-violet. I and cyanuric bromide or 2,4-dichloro-6-methoxy-s-triazine gave navy blue dyes. The dye from I and cyanuric chloride condensed with o-anisidine gave a navy-blue dye.

IT 105862-43-9, 2,2'-Stilbenedisulfonic acid, 4-[[4-[(8-anilino-1-hydroxy-3,6-disulfo-2-naphthyl)azo]-2-[(4,6-dichloro-s-triazin-2-yl)amino]-5-methoxyphenyl]azo]-4'-nitro- (prepn. of)

RN 105862-43-9 CAPLUS

CN 2,2'-Stilbenedisulfonic acid, 4-[[4-[(8-anilino-1-hydroxy-3,6-disulfo-2-naphthyl)azo]-2-[(4,6-dichloro-s-triazin-2-yl)amino]-5-methoxyphenyl]azo]-4'-nitro- (7CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

—NO₂

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